

**Beliefs, attachment style and secondary trauma
as predictors of burnout in care staff for looked
after children.**

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THESIS ABSTRACT

Work-related stress (including burnout and occupational stress) are an increasing threat to people's wellbeing at work. Despite their common occurrence among staff in healthcare settings, little effort has been put into researching unregistered care staff. This is a group of healthcare employees who are exposed to significant stressors while executing frontline care tasks in health and social care settings, and who are not registered with a governing body. The first chapter explores the effectiveness of different interventions aimed at easing work-related stress in care staff. This chapter reviewed thirteen published studies and identified the emotional exhaustion component of burnout, involving tension, irritability and fatigue, as the most significant factor. Research is varied and often not based on evidence-based factors, such as organisational factors, known to contribute towards work-related stress. The significant design and methodological limitations of the studies reviewed limit the conclusions that can be drawn regarding the effectiveness of such interventions. In response to this, the second paper explores the influence of individual factors on burnout in a sample of care staff for looked after children, a currently under researched population who work with vulnerable and traumatised children. This study used multiple regression to analyse a range of predictors of burnout: attachment styles, beliefs, secondary trauma, previous traumatic events and time worked with looked after children. Results indicated that secondary trauma, and secondary trauma avoidance specifically, is a highly significant predictor for all burnout dimensions. These findings were explored in relation to their clinical implications, including their contribution towards the development of interventions for those working with looked after children. The final chapter provides a first person reflective commentary on the process and completion of this project, and further considers the findings of the literature review and the empirical paper.

Total Word Count (excluding references & appendices): 19093

PREFACE

The first chapter of this thesis will be submitted to the Journal of Occupational and Organizational Psychology. The second chapter will be submitted to the Journal of Residential Treatment for Children & Youth. Both chapters were written in line with the author guidelines issued by the journals (see Appendix N), though for ease of reading of this thesis the tables and figures have been left within the text. The formatting of all chapters is in line with Staffordshire and Keele Universities' guidelines and will be adjusted for publication purposes and in line with journal requirements at a later date. The third chapter of this thesis is not intended for publication but offers a reflective review of the thesis, and as such assumes reader familiarity with chapters one and two.

Chapter 1: Literature Review

Stressed at work? Interventions for healthcare support staff working in residential settings: A literature review.

Word Count (excluding references & appendices): 8448

ABSTRACT

The effectiveness of interventions aimed at reducing occupational stress, work-related anxiety and burnout (collectively work-related stress) in non-professional healthcare support staff working in residential settings was assessed through a literature review. Thirteen studies in a variety of residential settings were identified and reviewed. The evidence to date suggests some reductions in work-related stress, mainly in emotional exhaustion (an element of burnout), predominantly using interventions aimed at enhancing service users' wellbeing and improving staffs' ability to manage work-related challenges and stress. The quality of the reviewed research was limited, especially in relation to internal validity, low participant numbers, and lack of longitudinal research using control groups with rigorous randomisation. Further research is needed, particularly into adult and child, mental and physical health residential care settings, as well as improving research design and methodology, and differentiating between interventions conducive to reducing different work-related stress dimensions.

Practitioner Points

- This review acknowledges the potential benefits of reducing work-related stress in care staff working in residential settings through the use of service user focused, educational and stress management approaches.
- The results highlight the need for further work-related stress intervention research with non-professional healthcare support staff working in residential settings, especially in adult and child populations.

INTRODUCTION

Work-related stress has been estimated to cost the United Kingdom in excess of 530 million pounds a year, with the highest prevalence among healthcare professionals (Health and Safety Executive, 2007, 2014). Over time work-related stress has been referred to as occupational stress, work stress and burnout. These descriptions imply an employee's reaction to stressors at work, resulting from the interplay of the work environment, such as accessibility to resources, and the employee's coping strategies, such as accessing social support, communication and emotion regulation skills (e.g. Maslach & Schaufeli, 1993; Maslach, Schaufeli, & Leiter, 2001).

While occupational stress is defined as tension, stress, and anxiety arising from work-related demands and difficulties (VandenBos, 2007), burnout is considered to be a long-term stress reaction, and is particularly salient among individuals working with people in the helping professions, such as health care, education and human services (Schaufeli & Buunk, 1996; Schaufeli & Peeters, 2000). Burnout has been defined as 'physical, emotional, or mental exhaustion...accompanied by decreased motivation, lowered performance, and negative attitudes towards oneself and others' (VandenBos, 2007, p.140). As such it has been viewed as encompassing three dimensions: Emotional Exhaustion (EE) - the depletion of emotional resources (such as motivation and sense of control) leading to tension, irritability and fatigue; reduced Personal Accomplishment (PA) - the extent to which an individual feels a sense of achievement and competence in their work; and Depersonalization (DP) - an individual's attempt to emotionally distance him/herself from service users (Maslach, Schaufeli, & Leiter, 2001). These dimensions are typically measured using the Maslach Burnout Inventory (MBI; e.g. Maslach, Jackson, & Leiter, 1996), a standardised measure with high reliability and validity (e.g. Maslach & Jackson, 1981).

Schaufeli and Van Dierendonck (1993) established a significant and distinguished validity for DP and PA in relation to burnout, meaning that these dimensions are specifically related to burnout. EE however was also related to

physical complaints and psychological strain and may therefore not be an exclusive component of burnout, but also be relevant to lower level occupational stress and anxiety, which was further supported by Rothman (2008) and Turnipseed (1998). It is therefore difficult to distinguish between these concepts based on their symptoms alone, and according to Maslach and Schaufeli (1993) they can be distinguished on the basis of a process along a continuum. Nonetheless, these concepts have predominantly been researched as a state, not a process (Maslach & Schaufeli, 1993). An implication may be that individuals at different stages on the continuum might require different support, and it is thus important to consider the different states along the continuum, rather than focusing on only one state alone. Due to this and the overlap of some of the aforementioned concepts, this review will consider the work-related stress concepts of: burnout, occupational stress, caregiver distress, job stress, and work-related anxiety. Collectively these will be referred to as work-related stress throughout the review, while referring to the original concept investigated in individual articles.

Health care professionals (e.g. nurses) are particularly vulnerable to experiencing work-related stress (Health Education England, 2014; Nuffield Trust, 1998). Service users who present with significant physical and mental health difficulties, as well as health care workers' high caseloads and increased work expectations, have often been factors cited as leading to work-related stress (Nuffield Trust, 1998), which has a high incidence rate (40%) in the National Health Service (NHS staff survey, 2014).

A range of professional groups working in healthcare settings have participated in research relating to work-related stress, including Psychologists (e.g. Cushway & Tyler, 1999), Nurses (e.g. Kipping, 2000), Occupational Therapists (e.g. Sweeney & Nichols, 1996), and Social Workers (e.g. Lloyd, King, Chenoweth, 2002). However, one group of healthcare staff has received less attention in the literature, namely non-professional healthcare support staff (such as Nursing Assistants, Residential Care Staff, and Support Workers; henceforth collectively referred to as care staff). These healthcare employees execute frontline care tasks in health and social care settings, are not registered with a governing body,

yet usually have the highest levels of contact with service users (e.g. D'Eramo, Papp & Rose, 2001). This is particularly the case in long-term residential care settings aimed at individuals with complex health and/or care needs, providing housing, meals and possibly medical, nursing and social services (VandenBos, 2007). Consequently, care staffs have a direct influence on the lives of service users (Hodgkins, Rose & Rose, 2005), significantly contributing towards their recovery and wellbeing (Moses, 2000). However, shift work, lack of flexibility in working hours, workload and managing physically and mentally demanding situations, in addition to receiving low salaries, have been shown to lead to high levels of work-related stress among this occupational group in older adult (Chappell & Novak, 1992), child (Seti, 2007), and learning disability (Rose, 1997) settings. Thus, work-related stress appears common among residential care staff, and negatively affects the staff themselves.

However, care staffs' work-related stress also has secondary implications for the service users they work with. Transitioning into residential care is rarely a choice for service users for a variety of reasons (e.g. deterioration in physical or mental health), and frequently happens at a time of crisis. The move often adds to their stress and requires a great deal of adaptation and adjustment to the new environment and lifestyle, which is likely to be different from service users' previous residence in regards to environment, routines, company and preferred recreational activities (Falk, Wijk, Persson, & Falk, 2013). Research into what leads to a positive outcome in care has stressed the importance of secure attachment relationships between care staff and service users (e.g. Florsheim, Shotorbani, Guest-Warnick, Barratt, & Hwang, 2000; Zeger, 2007). It has been argued that these take a long time to develop, possibly due to service users initially feeling apprehensive towards unknown individuals' involvement in their care (Harder, Knorth, & Kalverboer, 2013). Work-related stress can negatively impact on staffs' interaction with service users and subsequently their relationships (Jenkins & Allen, 1988; Rose, Jones & Fletcher, 1998). This may lead to long-term sick leave or job termination, thereby compromising service users' recovery and wellbeing.

A number of factors influencing work-related stress have been identified in the literature, including both personal and organizational characteristics. Maslach et al. (2001) summarised significant research findings concerning personal characteristics, such as being young, unmarried and male, single, having more educational qualifications, and low levels of hardiness (ability to adapt to unexpected changes). Organizational characteristics that may contribute to the experience of work-related stress include the infringement of staffs' basic expectations of fairness at work, such as violations of boundaries around agreed working hours. Furthermore, employers' expectations and demands on staff have increased over time, while employees receive less in return in terms of opportunities and job security, leading to feelings of injustice (Maslach et al., 2001).

In response to the consequences of the widespread negative effect of burnout among care staff and service users, efforts have been made to support staff through the development of stress combating interventions. Some interventions have aimed to reduce stress and develop employees' personal ability to cope within their work environment through a variety of strategies, such as relaxation (Tsai & Crockett, 1993) or cognitive behavioural skills, including the use of thought records for cognitive restructuring (Maguire, Grellier, & Clayton, 2010); the focus here is on individuals learning to manage their own stress reactions. Other interventions have aimed to enhance care staffs' skills and knowledge in relation to their role at work through communication skills (Delvaux et al., 2004), problem solving skills (Heaney, Price, & Rafferty, 1995), or knowledge and skills training (Schrijnemaekers et al., 2003), thereby aiming to reduce stress through advancing skills to manage work more effectively. Finally, some studies have evaluated the influence of interventions aimed at service users' wellbeing, such as sensory interventions, which are interventions that stimulate the senses of hearing, touch, vision or smell without higher cognitive processes to achieve wellbeing, on staff stress (e.g. van Weert, van Dulmen, Spreeuwenberg, Bensing, and Ribbe, 2005). Here the reduction in work-related stress is a potential secondary gain of the intervention, which has been investigated due to the hypothesis that improved well-being in service users may reduce care-seeking

behaviours, which are often deemed stressful by staff (Wheeler & Oyeboode, 2010).

To date, several reviews have been published on the efficacy of work-related stress interventions in professional, or a mix of professional and non-professional healthcare workers. Findings demonstrate some effectiveness in relation to reducing EE, and emphasise the need for more rigorous research (e.g. Mimura & Griffiths, 2003; Ruotsalainen, Serra, Marine, & Verbeek, 2008; Westermann, Kozak, Harling, & Nienhaus, 2014). However, despite care staffs' continual close contact with service users and the identified negative influence of work-related stress on care staff and service users' wellbeing, no review has been identified with a sole focus on the efficacy of work-related interventions for (non-professional) care staff working in residential care settings, which is the subject of this review.

CURRENT REVIEW

Objectives

This review explores work-related stress interventions with (non-professional) care staff working in residential settings. As such the review focuses on the effectiveness of the interventions in relieving work-related stress, as well as the breadth (type of interventions and client groups) and methodological quality of the studies. Recommendations for future research will be made and clinical implications considered.

Method

A systematic approach, which followed a number of steps and thereby enables replication, was taken to identify relevant articles. A formal systematic review was beyond the scope of this paper.

Search Methods for Identification of Studies

The following databases and hosts were searched for content: EBSCO, Web of Science, British Nursing Index (BNI), CINAHL, EMBASE, Allied and Complimentary Medicine Database (AMED), Health Management Information Consortium (HMIC), and MEDLINE. The search combined a range of terms, with the same or similar meaning to: 'burnout' or 'occupational stress'; 'direct care staff'; 'residential care'; and 'treatment' (see Appendix A). Additional hand searches were undertaken in relevant journals, reference lists and relevant authors' publication lists; selected authors were contacted to clarify information (Figure 1).

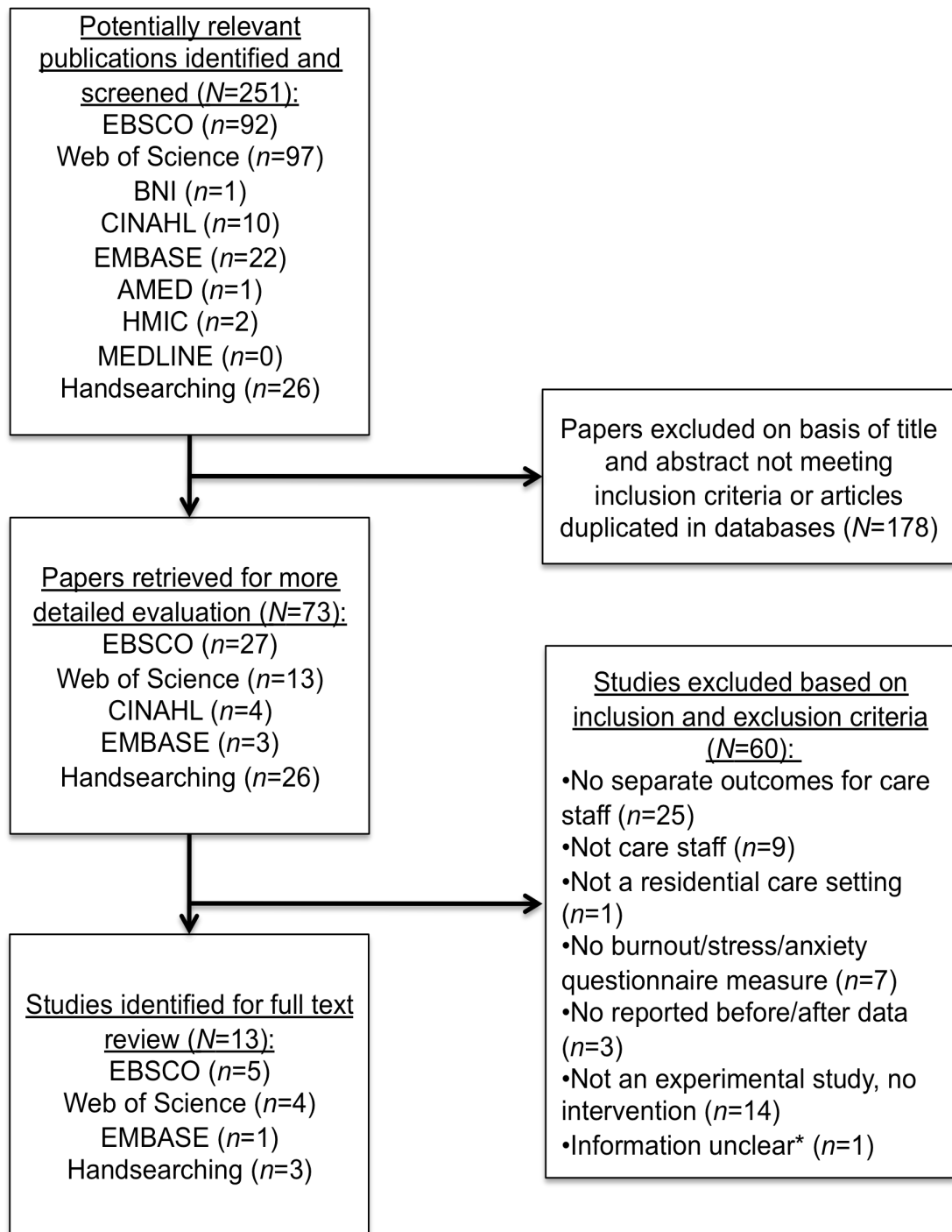


Figure1. Flowchart

Note. *Author was contacted to clarify information, but did not respond.

Titles and abstracts of identified articles were read to determine if they met the inclusion criteria; full texts were retrieved for studies where it was not fully clear from the abstract whether criteria were met. Full text papers were retrieved and

further checked for inclusion and exclusion criteria, leading to the final number of review articles (see *Figure 1.*).

Inclusion Criteria

In order to determine the effectiveness of interventions, peer reviewed studies published in the English language before the 31st of October 2014, with no specific start date, were included provided they met the following criteria:

- An intervention on work-related stress was investigated.
- Care staffs were the primary or secondary participants.
- The study took place in a long-term residential setting(s).
- Participants completed self-report questionnaire outcome measures, which were administered pre- and post-intervention, at least once.

Care staff were defined as staff employed in residential health care settings who provide direct care to residents, such as support with daily living tasks and activities including personal care or recreational activities. This included any unregistered and non-professional care staff occupation, such as Nursing Aides and Nursing Assistants.

Residential settings were defined as care settings that offered 24-hour long-term care to service users. Palliative care and secure settings were excluded, as these were deemed to provide staff with different stressors, such as the stress of managing people's feelings of mortality, the perceived threat of violence and actual physical violence, as well as confrontation and belligerence from service users.

With the exception of clients residing in forensic and palliative settings, all client groups were considered for this review, due to the current paucity of research focusing on care staffs' work-related stress in some specific service user groups, e.g. learning disability. The current review will therefore broadly review the literature in this area. Nevertheless, it is acknowledged that different client groups may present with varying difficulties, and thus demands on care staff.

Exclusion Criteria

Reviews, commentaries, unpublished articles and those not published in the English language were excluded, as well as studies which did not offer separate results for care staff in a mixed sample of clinical and care staff.

Critical Appraisal

As no specific appraisal tool encapsulated the methodology of all of the studies reviewed, a checklist (see Appendix B, Appendix C for rating outcomes) was compiled based on the most pertinent sources, which included questions from: Young and Solomon's (2009) appraisal questions; Downs and Black's (1998), appraisal checklist, which assesses quality of both randomized and non-randomized studies; and the Critical Appraisal Skills Programme tools (Critical Appraisal Skills Programme, 2014).

RESULTS

The literature search yielded a total of thirteen quantitative studies that met the inclusion criteria.

Overview of Papers

A brief overview of the studies' characteristics is provided in Table 1. Four studies investigated the impact of interventions aimed at enhancing the wellbeing of service users' with dementia, with a secondary goal of reducing care staffs' work-related stress. Narme et al. (2013) aimed to reduce caregiver distress through cooking and music interventions for service users, while Noguchi, Kawano, and Yamanaka (2013) managed service users' behavioural and psychological symptoms in an effort to reduce staff burnout. Van Weert et al. (2005) intended to enhance service users' sensory stimulation to increase positive behaviours and therefore reduce staff burnout. Finally, Baldelli et al. (2004) intended to improve staffs' burnout levels through enhancing the psychological performance in service users using occupational therapy and cognitive rehabilitation.

Flannery, Resnick, and McMullen (2012) and D'Eramo et al. (2001) implemented interventions aimed at improving staffs' personal health and wellbeing. The former aimed to increase activity and reduce salt consumption in care staff while the latter delivered complimentary therapy, such as yoga and meditation, to reduce staffs' job stress and burnout.

Seven studies aimed to reduce work-related stress by enhancing staffs' skills and empowerment in the work place. Passalacqua and Harwood (2012) and Schrijnemaekers et al. (2003) both aimed to enhance staffs' communication skills with service users with dementia. Robison et al. (2007) planned to enhance communication techniques between staff and relatives, aiming to develop effective conflict-resolution skills. Proctor, Stratton-Powell, Tarrier, and Burns (1998) based their education programme on staffs' views of their developmental needs, including education and behaviour management skills. Torsney (2011) aimed to enhance levels of control and thereby reduce stress by involving care staff in team meetings. Hodgkins et al. (2005) and Rose et al. (1998) both conducted research in residential facilities for people with a learning disability; the former aimed to reduce stress through problem solving and stress management techniques in care staff, whilst the latter based their intervention on staffs' identified needs to reduce stress-related anxiety through a problem solving and relation building intervention.

Table 1

Details of reviewed studies

Reference Country	& Design, Participants & Sample Size	Outcome Measure	Intervention, Duration, Follow-up (FU)	Client Group	Outcome	Strengths	Limitations
Narme et al. (2013), France	Pre-Post (care- giver data only), Professional caregivers (n=unknown)	NPI caregiver distress scale (Sisco et al., 2000)	Music and cooking sessions: 4 weeks (2x1h a week over 4 weeks = 8h), FU: End of intervention, 2 & 4 weeks.	OA	Music: ↔ (end) ↔ (2 wks) Sig. ↓ (4 wks) Cooking: Sig. ↓ (end) ↔ (2 wks) ↔ (4 wks)	Some positive effects of indirect intervention on care staff.	No supporting evidence of intervention influencing staff, no control group, no participant characteristics outlined.
Noguchi, et al. (2013), Japan	Pre-Post, care staff trainees (N=10)	MBI (Higashiguchi et al., 1998)	Applied Behavioural Analysis (ABA): 1 month (1x 2h session, assistance in plan making, feedback sessions 1x a week), FU: 1 month	OA	EE ↔ DP ↔ PA ↔	Staff burden was not increased using the intervention, valuable area of research.	Intervention only with one service user-limiting impact, no control group, no participant characteristics outlined, small N.

Flannery et al. (2012), USA	QE, Nursing assistants (Intervention n=24, control intervention n=15)	Effort reward and imbalance questionnaire (Siegrist et al., 2004)	Worksite Heart Health Improvement Project (WHHIP), increasing physical activity, reducing salt and fat consumption: 3 months, inc. assessment, education and ongoing motivation, FU: 6 months	OA	No significant difference	Based on supporting evidence, accounted for missing data.	Likely attrition bias, insufficient power.
Passalacqua & Harwood (2012), USA	Pre-Post, Para-professional caregivers (N=26)	MBI (Maslach & Jackson, 1981)	Value Individualized Perspective Social (VIPS) Environment Programme: 4 1h workshops, FU: 6 weeks	OA	EE (3 items) ** DP (3 items) ↓	Based on good evidence, sessions outlined in great detail, care staffs needs were considered and incorporated into programme.	No control group, some unreliable attendance by participants, adapted MBI without reason, only used three items each for the MBI EE and DP scales.
Torsney (2011), USA	Pre-Post, CNA & LPN (Intervention n=12, control n=12)	Care Provider Questionnaire with stress inventory (Mahairas et al. 1990)	Inclusion in team meetings: Participation in 4 treatment team meetings over 4 months, FU: End of intervention	V	No significant changes	Investigated organisational factor, accounted for the potential influence of some participants having previously attended team meetings, no attrition.	Dynamics in team meetings not explored.

Robison et al. (2007), USA	CRCT, CNA & others (Intervention n=134, Control n=146)	MBI (Maslach, 1982, Pillemer & Moore, 1989)	Partners in Care Giving in the Special Care Unit (PIC-SCU) programme: 4-5h training sessions + 2h action session, FU: 2 & 6 months	OA	DP ↔	CRCT study, reported sufficient power.	Specific intervention which may ignore other stressors for care staff, did not stratify organisational factors prior to randomisation, likely attrition bias, excluded MBI EE and PA scales without reason.
Hodgkins et al. (2005), UK	Pre-Post, Direct care staff (N=46)	MBI (Maslach et al., 1996), anxiety measure (Fletcher, 1989)	Stress management & problem solving: 1 day, FU: 3 months	LD	EE ↓ DP ↔ PA ↔ Anxiety ↓	Interventions were based on staff groups identified needs.	Interventions not described, no control group, unclear if characteristics evenly distributed among populations, no reliability or validity info. for the Short Anxiety Measure, large SDs.
van Weert et al. (2005), Netherlands	QE, CNA (Intervention n=66, Control n=68)	MBI-NL, 20 items (Schaufeli & van Dierendonck, 2000)	Snoezelen: 4 x 4h sessions, FU: 18 months	OA	EE ↓ PA ↔	Checked for contamination, reported effect sizes.	stratified some organisational factors, likely attrition bias, excluded MBI DP

Baldelli et al. (2004), Italy	Pre-Post, Care aides and nursing staff (n=21)	MBI, 22 items (Maslach & Jackson, 1986)	OT & cognitive rehabilitation: Ongoing, FU: 12 months	OA	EE ↓ DP ↓ PA ↑	Large MBI score reductions post intervention.	No supporting evidence of intervention influencing staff, no control group.
Schrijnemaekers et al. (2003), Netherlands	CRCT, Caregivers (Intervention n=155, Control n=145)	MBI-NL, 20 items (Schaufeli, Maslach, & Marek, 1993)	Emotional oriented care training: 8 months (1h clinical lesson, 6 day training programme, 3x ½ day supervision meetings), FU: 3, 6, & 12 months	OA	EE ↓ (6m) ↔ (12 m) DP ↔ PA ↑ (12m)	Prior evidence, emphasis on supporting staff with practical skills, CRCT study, maintained randomisation at analysis stage.	Possible selection bias.
D'Eramo et al. (2001), USA	Pre-Post, Nursing assistants (N=17)	MBI (Maslach, et al., 1996)	Complementary therapies: 90 min weekly for 5 weeks, FU: End of intervention & several months	OA	EE ↔ DP ↔ PA ↔	Study designed to specifically support unregistered nursing assistants.	Insufficient and speculative evidence on the influence of intervention on staff, participation may not have been voluntary.

Proctor et al. (1998), UK	CRCT, Care staff (Intervention n=51, Control n=47)	Occupational stress indicator (Cooper, Sloane, & Williams, 1988)	Educational programme & behaviour management skills: 7 1h seminars + weekly individual sessions (total over 6 months), FU: 6 months	OA	No significant changes	Conducted pilot study to identify areas in which staff needed to develop, which were incorporated into training programme, CRCT study, accounted for missing data.	Did not stratify organisational factors prior to randomisation.
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Rose et al. (1998), UK	QE, Direct care staff (Intervention n=15, Control n=23)	Thought and feelings index (Fletcher, 1989).	Training based on Demands, Support & Constraint model (Payne, 1979): 1 full day + 1h follow up session (over 2 months), FU: 4-5 months	LD	Anxiety ↓ (within intervention group)	Based their training workshop on an initial investigation of what impacts on staffs' work-related anxiety.	Stratified some organisational factors.
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Note. ↔=no significant difference, ↑=significant increase in score, ↓=significant decrease in score, QE=quasi-experiment, CRCT=cluster randomized controlled trial, EE=emotional exhaustion, DP=depersonalization, PA=personal accomplishment, MBI=Maslach Burnout Inventory, MBI-NL=Maslach Burnout Inventory Netherlands, NPI=Neuropsychiatric Inventory, CNA=Certified Nursing Assistants, LPN=Licensed Practitioner Nurse, OA=Older adult/dementia, V=Veteran care, LD=Learning disability

Critical Appraisal

Interventions

Some studies implemented interventions with little or no supporting evidence on how the intervention aimed to address work-related stress. For example, Baldelli et al. (2004) offered no explanation for their ongoing intervention of occupational therapy and cognitive rehabilitation for service users, how it might impact staffs' burnout, and how often service users were offered the interventions. This makes it difficult for readers to consider strengths and limitations or replication. Similarly, although Narme et al. (2013) and Noguchi et al. (2013) considered the impact of their interventions, namely music and cooking sessions for service users and Applied Behavioural Analysis (ABA) with staff and service users, neither suggested why or how these interventions could impact on staffs' stress and burnout. Furthermore, Noguchi et al. (2013) only used ABA with one service user per residential home, results would therefore be expected to show minimal effects on staff due to their daily involvement with a range of service users. Van Weert et al. (2005) based their study on previous recommendations to investigate the impact of Snoezelen, a multi-sensory stimulation (MSS) intervention for service users, on staff. However, they offer little further evidence of the specific effect on staff. D'Eramo et al. (2001) used insufficient and speculative evidence to explain the use of complimentary therapy as an intervention for burnout, such as staff yoga and meditation. Whilst the evidence base for intervention studies for care staff is limited, there is considerable evidence for factors contributing towards work-related stress, and burnout specifically (e.g. Duffy, Oyeboode, & Allen, 2009; Kokkonen, Cheston, Dallos, & Smart, 2014; Lakin, Leon, & Miller, 2008; Rose, Madurai, Thomas, Duffy, & Oyeboode, 2010). Therefore, one would expect researchers to draw on such evidence when considering an intervention aimed at reducing work-related stress, which the aforementioned studies failed to do. This may have led to interventions that do not address the main contributing factors of work-related stress and may be likely to have little to no effect.

A few studies offered further evidence to justify the implementation of their chosen interventions. Flannery et al.'s (2012) intervention, a worksite heart health

improvement project (WHHIP) for staff, aimed to reduce job stress and was based on supporting evidence among office and health care workers, which found reduced job strain and fatigue. Passalacqua & Harwood (2012) based their intervention, the Value Individualized Perspective Social Environment Programme (VIPS) for staff, on research suggesting that staff experienced less burnout following communication skills training. Positively, the authors outlined each session in great detail, thereby enabling replication. Furthermore, care staff identified what they found challenging in their job, such as service users' anger and aggression, and this was incorporated into the programme.

Robison et al. (2007) based their intervention; the Partners in Care Giving in the Special Care Unit Environment (PIC-SCU) programme for staff and relatives, on research suggesting that working with service users' families is stressful for staff, and may contribute towards burnout. However, this intervention appears very specific and may ignore other stressors for care staff, such as high workloads, understaffing and unpredictable behaviours by service users (Sung, Chang, & Tsai, 2005). Schrijnemaekers et al. (2003) based their intervention on prior evidence suggesting Emotion Oriented Care Training for staff reduces burnout. Their strong emphasis on implementing practical skills into daily care through didactic teaching methods and supervision meetings post training programme appears beneficial in light of evidence that suggests that individuals learn best through practice (Billett, 2010).

Despite offering some supporting evidence for reducing work-related stress, the aforementioned studies do not consider some potentially prominent factors, such as organisational factors (Maslach et al., 2001). Only three studies investigated or considered organisational factors on staffs' work-related stress. Based on the hypothesis that care staff's feelings of disempowerment at work leads to stress, Torsney (2011) used staffs' attendance at team meetings as an intervention by aiming to enhance levels of control and thereby reduce job stress. However, empowerment in team meetings may depend on a number of factors other than sole attendance, for example the dynamics between staff and the extent to which care staff were encouraged to participate in such meetings. This was not discussed and may have limited the impact of the intervention on staffs' job

stress. Rose et al. (1998) and Hodgkins et al. (2005) considered any influences on work-stress, including organisational factors, and considered within their tailored interventions how to overcome these.

In addition to Hodgkins et al. (2005) and Rose et al. (1998), Proctor et al. (1998) also investigated staffs' needs or sources of work-related stress and tailored interventions according to the findings. More specifically, Proctor et al. (1998) conducted a pilot study to identify areas in which staff needed to develop, basing their staff education programme on the findings, such as the theoretical understanding of disorders. Hodgkins et al. (2005) based their intervention, a stress management and problem-solving workshop for staff, on stressors that were identified in staff teams. However, the actual intervention was not described due to difference between residential homes, making it difficult to evaluate their approach. Rose et al. (1998) based their training workshop on an initial investigation of what impacts on staffs' work-related anxiety, thereby addressing some of the drawbacks of others, which investigate very specific work-related stress factors (e.g. Robison et al., 2007).

Design and Methodology

Three studies (Proctor et al., 1998; Robison et al., 2007; Schrijnemaekers et al., 2003) utilised cluster randomized control trials (CRCT), a type of randomised controlled trial (RCT) in which groups of participants opposed to individuals are randomised, such as all staff in a residential home or ward. While aiming to reduce bias, CRCT may still suffer from selection bias (systematic differences between baseline characteristics of compared groups) if individual participants are recruited after the clusters have been allocated. This appears to have been the case in Schrijnemaekers et al. (2003) study.

Some studies did not include control groups (Baldelli et al., 2004; Hodgkins et al., 2005; Narme et al., 2013; Noguchi et al., 2013; Passalacqua & Harwood, 2012) and offered limited recruitment information. This made it difficult to determine if the sample was representative of the staff population. D'Eramo et al. (2001) outlined their recruitment process in which potential participants were asked to

take part by their supervisors, thus participation may not have been voluntary, and participants may have lacked motivation to participate.

Two of the studies reviewed did not outline participant characteristics and thus it is difficult to determine the range of participants in the studies (Narme et al., 2013; Noguchi et al., 2013). Others presented limited information on: gender, age, occupation, employment type (full or part time), and ethnicity (Baldelli et al., 2004; Hodgkins et al., 2005; Passalacqua & Harwood, 2012; Proctor et al., 1998; Rose et al., 1998). Considering the topic researched, participants' years of employment and weekly working hours may be important, as these variables may considerably influence participants' experience of work-related stress, and thereby act as confounding variables (variables that may influence the results other than the variables under investigation). Several studies reported such information (D'Eramo et al., 2001; Noguchi et al., 2013; Torsney, 2011), though others did not (e.g. Hodgkins et al., 2005). This is a limitation due to readers being unable to identify whether important characteristics were evenly distributed among the study populations or acted as confounders, and therefore being unable to determine the generalisability of findings. Furthermore, organisational factors can be highly influential on stress experiences (e.g. Maslach & Leiter, 1997). Ideally these factors are stratified prior to randomisation (partitioning participants by a factor other than the intervention), which is particularly important in research with large numbers of residential homes, which may be managed and run differently. Some studies failed to do this, such as Proctor (1998) and Robison et al. (2007). Conversely, Rose et al. (1998) and van Weert et al. (2005) stratified some variables, such as staff wellbeing, care home population, staff motivation, and work atmosphere.

Few studies outlined whether attendance of participants in the intervention groups was reliable. For example, if new participants joined the interventions at any point after starting, or if any other contamination, such as staff sharing information with control samples or irregular attendance, occurred. One study (van Weert et al., 2005), accounted for contamination through interviewing nurses to check if individuals in the control group utilised any intervention methods during the study period. Torsney (2011) accounted for the potential

influence of some participants having previously attended team meetings through the statistical analysis utilised. The reliability of staff attendance and other contamination in an intervention study can have significant effects on the outcome, as failing to do so can lead to results which do not necessarily reflect the true effect of the intervention. This makes it an important factor to consider and control for, which a number of the reviewed studies failed to do, such as Passalacqua and Harwood (2012) who experienced some unreliable attendance of their intervention, with some participants only having attended half of the intervention sessions.

Investigating participants' work-related stress means that there is a likelihood of participants leaving work or becoming sick due to stress. Attrition bias (which relates to the number of participants who withdraw from a study and do not complete follow-up measures) is therefore important to consider. Ideally, those who are lost to follow-up should still be taken into account in the analysis. Failing to do so can reduce the validity and therefore generalisability of results, for example if withdrawn participants are not random or if dropout rates vary between samples. It has been argued that whilst 5% attrition may cause little bias, 20% or more poses a serious threat to the validity of the results (Dettori, 2011). Of the reviewed studies that stipulated attrition, three suffered more than 20% attrition bias (Flannery et al., 2012; Robison et al., 2007; van Weert et al., 2005). However, Robison et al. (2007) contacted dropouts, while van Weert et al. (2005) included non-completers in their analysis. Two studies reported less than 20% attrition, (Proctor et al., 1998; Schrijnemaekers et al., 2003), while one suffered no attrition (Torsney, 2011). The remaining studies did not report attrition, which could indicate a source of bias.

Assessment Methods and Findings

Most reviewed studies used the standardised MBI ($n=8$; see Table 1). Of the five studies that employed the full-scale MBI, three found a reduction in EE and DP and an increase in PA, such as Baldelli et al. (2004). Schrijnemaekers et al. (2003) and Hodgkins et al. (2005) found similar finding for EE, however Schrijnemaekers et al. (2003) found these changes disappeared after 12 months. Schrijnemaekers et al. (2003) also found an increase in PA after 12 months, yet

not before. However, some of the scores of these studies indicated low levels of burnout at baseline, such as EE (Baldelli et al., 2004) and DP (Baldelli et al., 2004; Hodgkins et al., 2005).

Three studies used only some of the subscales of the MBI (van Weert et al. 2005; Robison et al., 2007) or an adapted version (Passalacqua & Harwood, 2012). Van Weert et al. (2005) excluded the DP scale altogether due to low internal reliability, but employed the full EE and PA scale, finding lower scores in EE at post-test. Robison et al. (2007) only used the DP scale of the MBI (Pillemer & Moore, 1989), failing to explain their reasons for omitting the other two scales. They found no significant changes in DP. Passalacqua and Harwood (2012) only used three items each for the EE and DP scales. They reported adequate alpha reliability for both, yet failed to explain why they did not employ the full MBI scales, nor whether the abbreviated version was standardised or adapted by the authors. They found significant reductions in DP, but baseline scores suggest low burnout rates. However, comparisons of these results with studies that employed the full scales may be invalid, due to the short version potentially focusing on specific aspects of the scale, which may not represent the same experience reflected in the full MBI.

The remaining studies measured work-related stress using other self-report measures. Hodgkins et al. (2005) did not report reliability or validity information for the Short Anxiety Measure utilised alongside the MBI, finding lower work-related anxiety scores at post-test. Furthermore the author did not stipulate whether scores were clinically significant at baseline. The remaining measures employed were found to be reliable and valid as outlined by the authors. Two studies in which participants showed moderate levels of work-related stress at baseline, found no significant reduction using the Occupational Stress Indicator (Proctor et al., 1998) and the Effort-Reward and Imbalance Questionnaire (Flannery et al., 2012). Two studies found lower work-related stress levels at post-test using the Thoughts and Feelings Index (Rose et al., 1998), and the NPI Caregiver Distress Scale (Narme et al., 2013). The latter study found a significant reduction of caregiver distress in one intervention (music) after four weeks, while the other (cooking) intervention's positive effect disappeared after the end of the

intervention. However, in both studies baseline scores indicated low work-related stress, highlighting selection limitations. Similarly, Torsney's (2011) sample did not experience significant job stress at baseline as determined by the Care Provider Questionnaire. No significant changes in job stress were identified at post-test. The low work-related stress scores at baseline of some of the studies raise questions about the value of the findings, as changes may be subtle and interventions not always necessary. Low levels of stress can have a potential benefit in performance, as indicated by Yerkes and Dodson's (1908) law, which states that performance improves with increased arousal (i.e. stress) up to a point after which it decreases steadily. Thus, arousal can improve motivation and productivity at work, until it becomes too much and productivity ceases.

The effectiveness of an intervention, as well as how long the effects of an intervention last, are important factors in choosing one intervention over another. Among the reviewed papers, only four (D'Eramo et al., 2001; Narme et al., 2013, Robison et al., 2007; Schrijnemaekers et al., 2003,) followed-up participants at two to three time points after an intervention (see Table 1), thereby observing if effects were maintained. Schrijnemaekers et al.'s (2003) found different findings among burnout concepts and interventions among follow-up measures, while Narme et al. (2013) found effects on caregiver distress to vary between follow-up measures. This indicates that significant changes may occur at different time points after an intervention and that maintenance of effects may vary between burnout dimensions. The lack of follow-up measures among the remaining studies limits further investigation.

The seven studies, which demonstrated a reduction in work-related stress, varied in relation to intervention length, which ranged from a four-hour long intervention to one that was ongoing, with no end point. Among these studies, those which measured and yielded significant changes in the long-term (≥ 12 months) all utilised interventions which were also of a longer duration with a minimum of a sixteen-hours (van Weert et al., 2005), six days of training and further input (Schrijnemaekers et al., 2003) and an ongoing intervention (Baldelli et al., 2004). The remaining four studies which yielded significant changes in the short- to medium-term (≤ 12 months), utilised shorter interventions and did not measure

long-term effects (Hodgkins et al., 2005; Narme et al., 2013; Passalacqua & Harwood, 2012; Rose et al., 1998). It is consequently difficult to establish whether the implementation of shorter interventions also leads to longer lasting reductions in work-related stress. It thus remains difficult to identify which intervention, including its length and estimated duration of effects, is superior.

Data Analysis

Of the thirteen studies reviewed, two outlined the power or sample size required for their study (Schrijnemaekers et al., 2003; van Weert et al., 2005), and one commented on having sufficient power without further detail (Robison et al., 2007). The remaining nine studies did not outline power analyses, while one outlined insufficient power (Flannery et al., 2012). Considering some of the low participant numbers, one might hypothesise that some of the studies lacked power. This is likely to have limited the results to identify large effects only, which may lead to type two errors (failing to detect a change). Only one of the studies (van Weert et al., 2005) reported an effect size (the magnitude of an effect) by stipulating how much an intervention affects participants, which has been highlighted as important (Sullivan & Feinn, 2012). Thus, it is difficult to establish how much of an effect an intervention had on lowering work-related stress in the remaining studies.

Prior to analysing data, researchers ought to consider missing data, due to problems of type one errors (detecting change when there is none) and lower statistical power. Out of the studies reviewed, three accounted for missing data (Flannery et al., 2012; Proctor et al., 1998; Schrijnemaekers et al., 2003). Furthermore, among the studies with control groups, only one (Schrijnemaekers et al., 2003) analysed participants together, irrespectively of intervention completion, to maintain randomisation. No other control study considered this. The topic under investigation might invite data that is 'not missing at random', if participants who present as more stressed are more likely to drop out of research, for example. Such a pattern in missing data would lead to bias in the results. It is thus important to ensure missing data is appropriately handled.

Furthermore, detail about the variability within samples, through reporting of standard deviations (variation of data from the mean) and confidence intervals (the range of values that is believed to include the actual true value) allows for more precise evaluation of data. None of the studies reported confidence intervals, while nine reported standard deviations (SD; Baldelli et al., 2004; Flannery et al., 2012; Hodgkins et al., 2005; Narme et al., 2013; Noguchi et al., 2013; Passalacqua et al., 2012; Proctor et al., 1998; Torsney, 2011; van Weert et al., 2005). Hodgkins et al. (2005) for example reported large SD for some of their results, indicating that the values from participants are spread apart, thus showing large variation in the sample, and questioning the validity of the results. Studies that did not report SD invite questions by readers about the variation of the findings and thus their validity.

DISCUSSION

Out of thirteen studies, seven found some improvement in reducing work-related stress (see Table 1). Of these, five employed the MBI to measure burnout, four of which found a reduction in EE (Baldelli et al., 2004; Hodgkins et al., 2005; Schrijnemaekers et al., 2003; van Weert et al., 2005), which was the most affected work-related stress concept among the reviewed studies. Two studies found a reduction in DP (Baldelli et al., 2004; Passalacqua & Harwood, 2012) and two an improvement in PA (Baldelli et al., 2004; Schrijnemaekers et al., 2003). Of those studies that implemented other measures, two found a reduction in work-related anxiety (Hodgkins et al., 2005; Rose et al., 1998) and one a reduction in caregiver distress (Narme et al., 2013). Nonetheless, no type of intervention stood out as being most influential, which may indicate that a variety of different interventions can be effective in alleviating work-related stress, depending on the identified stressors and work context. For example, it appears that interventions aimed at improving service users' wellbeing can have a positive effect on care staffs' work-related stress, potentially through reducing behaviours that are perceived as challenging and contributing towards stress, such as anger and aggression. Furthermore, some studies that focused on enhancing care staffs' skills such as communication and problem solving within their occupational role, and also personally by managing stress through relaxation per se, were

found to reduce work-related stress. Interestingly, a study which implemented an intervention on enhancing communication with service users found a reduction in DP (Passalacqua & Harwood, 2012), while one which offered staff substantial support implementing learned strategies through ongoing supervision, increased PA (Schrijnemaekers et al., 2003). This might offer an initial idea as to what influences a change in these dimensions of burnout, namely fostering an understanding of service users' needs and supporting and supervising staff in implementing strategies.

Follow-up measures do, however, need to be considered carefully. One study (Schrijnemaekers et al., 2003) found a significant effect for EE at six months post intervention, which was not maintained at twelve months follow-up, and a significant effect of PA after twelve months, which was not significant before. This indicates that effects may decline or take longer to develop. Most studies only collected follow-up measures once after the end of an intervention. Thus any changes in work-related stress outside of these follow-up times would have not been identified, including long-term effects. Furthermore, the importance of the length of an intervention cannot yet be established. The studies that found a reduction in work-related stress were longer in comparison to others and collected follow-up data over a longer time period, whereas the studies with shorter interventions collected follow-up data shortly after the end of the intervention, thereby currently restricting comparison of the efficacy of short and long-term interventions.

When considering these findings in light of evidence that suggests stress and burnout develop along a continuum (e.g. Maslach & Schaufeli, 1993), it appears that most interventions reviewed here reflect the initial stages of stress at work, namely EE, work-related anxiety and occupational stress. This finding is in agreement with previous reviews (e.g. Mimura & Griffiths, 2003). However, considering that baseline work-related stress scores were low in several of the studies, little effect would be expected for the burnout specific scales, DP and PA, which have been deemed to develop following continuous exposure to stress (Cherniss, 1980). Thus, these constructs appear to have been less meaningful among some samples. DP and PA are also likely to be affected at different times,

perhaps later than EE, as suggested in Schrijnemaekers et al. (2003) results. Thus, the varying findings between EE, DP and PA perhaps suggest that the different dimensions change at different time points, which would support the argument that work-related stress develops along a continuum (Maslach & Schaufeli, 1993). However, significantly more research, which measures the different burnout dimensions at different time points, is required before conclusions can be drawn in relation to this.

To date, the evidence base for intervention studies aimed at reducing work-related stress in care staff is compromised by the limitations of the studies and is therefore modest at best. The quality of the results may have been compromised by the low participant numbers and the weak evidence used to justify implementation of interventions, which means that the interventions may have failed to address some pivotal stressors. Furthermore, internal validity may have been compromised in some studies through design issues including selection bias and failure to stratify for likely confounding variables. In addition, analysis issues may have failed to address missing data and unreported variability in the sample. Methodological issues raised concerns about unaddressed confounding factors, attrition bias and contamination factors, such as unreliable attendance. This indicates that the relation under investigation, namely the reduction of work-related stress through the implemented interventions may have been influenced by uncontrolled variables and the magnitude of the effects is thus likely to have been reduced. The external validity of most studies appeared adequate for generalisability to the same residential settings and populations, for example participants and controls were recruited from the same populations. Nonetheless, participant characteristics lacked important information at times (e.g. years of employment). The use of a well-established outcome measures, in particular the MBI (e.g. Maslach et al., 1996), further strengthens the external validity of those studies. With regards to the breadth of client groups, the present literature review identified no studies fitting the inclusion criteria in child and adult mental health or physical health care settings. Furthermore, only two studies in residential settings for individuals with learning disabilities were identified. It therefore appears that care staff interventions for work-related stress remain scarce or have not yet been conducted in some settings. Consequently it remains unclear whether

differences such as client groups, influence work-related stress and thereby the effectiveness of interventions differently, which limits the generalisability of findings.

Six studies found no changes in work-related stress (see Table 1). Reasons for this may include: the collection of follow-up measures at only one time point, thus changes may have occurred but these have not necessarily been discovered; low baseline scores in conjunction with small samples sizes, hence only large effects may be identifiable (risk of type two error); not addressing why an intervention may be helpful or addressing distinct yet potentially less influential issues in relation to work-related stress, which may lead to small effects which require a large sample to be identifiable (risk of type two error); or confounding factors were not addressed, which may have caused bias in the results. Based on this, it is questionable whether these studies added much empirical value to current research, as the limitations appear to be substantial and likely to have influenced the lack of an effect amongst these studies. Consequently, it is unlikely that these studies benefited care staff or the organisations in relation to cost implications and expected benefits, such as reduced staff resignation and sickness.

Recommendations and Clinical Implications

It is recommended future research focus on identifying pivotal contributors of work-related stress in a wide variety of residential settings, including child and adult mental and physical health settings, followed by research on intervention studies aiming to address the identified contributors. At this stage it is unclear if results from different service user populations are generalisable, making it imperative to investigate settings individually. Following Schrijnemaekers et al.'s (2003) findings, it may be worth considering follow-up measurements at different time points to further establish whether the various stress dimensions are affected at different points in time, and to identify how the length of an intervention may affect work-related stress in the long-term. Furthermore, future researchers should aim to research samples of staff that have moderate to high stress levels at baseline. Particular efforts should be made to strengthen design quality, such as participant allocation prior to cluster randomisation and stratification of potential confounding variables. Furthermore, to improve the

internal validity of studies, adequate numbers of participants should be recruited, confounding variables acknowledged and investigated, and particular attention should be paid to addressing attrition bias.

Clinically, the use of client- or skills-focused interventions in older adult and learning disability residential settings may help to reduce low-level work-related stress, such as EE and work-related anxiety. However, the potential short-term demands on staff in relation to training and implementation of service user interventions per se ought to be carefully considered. Supporting staff through supervision and support to implement strategies, such as communication skills, as well as aiding staffs' understanding and compassion for service users is recommended, as these may positively affect some of the concepts specific to burnout, namely DP and PA.

Limitations

A thorough literature search was conducted to identify articles that met the inclusion criteria. Nevertheless, it is likely that studies may have been missed due to publication in journals which were not listed in the searched databases nor identified by hand searching methods. Furthermore, publication bias is likely due to limiting reviewed articles to those published in peer-reviewed journals. Unfortunately this was unavoidable due to access restrictions, especially in relation to unpublished theses. Another limitation of this review includes the use of an appraisal tool which is not standardised, but which was adapted for the current review.

This literature review sought studies involving any residential setting and care staff; however, it needs to be recognised that there will be occupational role differences between settings and care staff, and that these may influence work-related stress in different ways. For example, one study focused on care staff working with veterans; this group may experience unique difficulties, which may present staff with different challenges to working with service users with dementia or a learning disability. Furthermore, the reviewed studies were conducted in a range of different countries and cultures. Potential cultural differences in relation

to coping with stress and variable access to training opportunities may make it difficult to directly compare these studies.

CONCLUSION

Overall, some evidence exists that work-related stress, and EE in particular, can be reduced in care staff working in residential settings. Effective interventions include client-focused, educational and stress management approaches. These results are promising, considering the estimated high numbers of burnt out staff working in the healthcare system (Health Education England, 2014). Nonetheless, this evidence is limited by the significant drawbacks of the studies reviewed, including low participant numbers, low baseline work-related stress rates, lack of evidence justifying the use of interventions, high attrition rates, and limited consideration of confounding factors. It is suggested that future research aims to identify stressors and investigate interventions in a wider range of settings, including child and adult residential care environments, which is currently lacking. Furthermore, there is a need to consider the collection of data at several follow-up time points to establish whether benefits of interventions are maintained, and to determine which interventions best effect the different work-related stress concepts.

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APPENDICES

Appendix A

Search terms

Care staff	Burnout	Residential care	Treatment
"support worker" OR "support- worker" OR "care worker" OR "care- worker" OR "care staff" OR "care- staff" OR "support staff" OR "support- staff" OR caregiver OR "care giver" OR "care-giver" OR "social care staff" OR "social-care staff" OR "health personnel" OR "health-personnel" OR "direct-care staff" OR "direct care staff" OR "residential care staff" OR "residential care worker" OR "residential worker" OR "direct care provider" OR "direct-care provider" OR "direct care staff" OR "direct-care staff" OR "health care provider" OR "health-care provider" OR "social care staff" OR "social-care staff" OR "social care worker" OR "social-care worker" OR "care assistant" OR care-assistant OR "paraprofessional care*" OR "para- professional care*"	Burnout OR "burn out" OR "burn-out" OR "occupational stress" OR occupational- stress OR "work stress" OR "work-stress" OR "work related stress" OR "work-related stress" OR "job stress" OR "job- stress" OR "compassion fatigue" OR "nursing stress" OR "nursing- stress" OR "work fatigue" OR "work-fatigue" OR "psychological stress" OR psychological- stress	Residential OR "care institutions" OR "care home" OR "care-home" OR "nursing home" OR "nursing- home" OR "long- term care" OR "long term care"	Intervention OR Program OR Programme OR Treatment OR training OR effectiveness OR evaluation

Appendix B

21 Appraisal Questions

1. Did the study address a clearly focused issue and was the chosen intervention appropriate?
2. Was the study design appropriate for the research question?
3. Were participants recruited in an appropriate way?
4. Were controls selected in an appropriate way?
5. Are the characteristics of the participants clearly described?
6. Did the study have sufficient power?
7. Have authors accounted for potential confounds in design/analysis?
8. Were participants appropriately allocated to intervention and control group (e.g. randomization)? (*Where applicable*)
9. Were participants in intervention and control groups recruited from the same population?
10. Were the main outcome measures used accurate (valid and reliable)?
11. Was unreliable attendance, new attendees or any other contamination accounted for?
12. Were losses of follow up taken into account?
13. Was the study performed according to the original protocol?
14. Does the study test a stated hypothesis?
15. Were the statistical analyses performed correctly?
16. Does the study provide estimates of the random variability in the data for the main outcomes? *In normal distribution data standard error, SD and confidence intervals.*
17. Have actual probability values been reported?
18. Are the results clearly reported?
19. Do the data justify the conclusion and were important outcomes considered?
20. Are the results clinically relevant and generalisable?
21. Are there any conflicts of interest?

Appendix C

Critical review question outcomes

Paper	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Quality Score
Narme et al. (2013)	Y	Y	DK	N/A	N	DK	P	N/A	N/A	Y	DK	DK	Y	Y	Y	Y	Y	Y	P	Y	DK	11
Flannery et al. (2012)	Y	Y	DK	DK	Y	N	P	P	P	Y	N	N	Y	Y	Y	P	Y	Y	Y	Y	N	13
Torsney (2011)	Y	Y	Y	P	Y	DK	P	Y	Y	Y	P	N/A	Y	Y	Y	P	Y	Y	Y	Y	DK	16
Robison et al (2007)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	DK	Y	Y	Y	Y	N	Y	N	Y	Y	DK	17
Rose et al.(1998)	Y	Y	Y	Y	P	DK	P	P	Y	DK	DK	N	N	Y	Y	N	P	P	Y	Y	DK	11.5
van Weert et al. (2005)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	P	Y	Y	Y	N	19
Passalacqua & Harwood (2012)	Y	Y	DK	N/A	P	DK	N	N/A	N/A	N	N	N	N	N	Y	P	N	P	Y	Y	DK	6.5
Proctor et al. (1998)	Y	Y	Y	Y	P	DK	N	Y	Y	Y	DK	Y	Y	Y	Y	P	Y	Y	Y	Y	DK	16
D'Eramo, et al. (2001)	Y	Y	P	N/A	Y	DK	DK	N/A	N/A	Y	DK	DK	Y	N	DK	N	N	N	Y	Y	DK	7.5
Baldelli et al. (2004)	P	Y	DK	N/A	P	DK	DK	N/A	N/A	Y	N	N	Y	N	DK	P	Y	P	P	Y	DK	7.5

Schrijnemaekers et al. (2003)	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	P	Y	Y	N	Y	N	N	P	Y	Y	DK	15.5
Hodgkins, et al. (2005)	Y	Y	DK	N/A	P	DK	DK	N/A	N/A	DK/P	N	N	Y	Y	Y	P	Y	Y	Y	Y	DK	10.5
Noguchi, et al. (2013)	Y	P	DK	N/A	N	DK	N	N/A	N/A	P	DK	DK	Y	N	Y	P	Y	Y	Y	Y	DK	8.5

Note. Y=yes, N=no, DK=don't know, N/A= not applicable, P=partly (where the author felt the question was addressed to an extent, yet could have been elaborated upon), scoring: Y=1 point, P= 0.5 points, N=0 points, DK = 0 points

Chapter 2: Research Report

Beliefs, attachment style and secondary trauma as predictors of burnout in care staff for looked after children

Word Count (excluding references & appendices): 7300

ABSTRACT

This study explored the contributions of beliefs, attachment style, secondary trauma, stressful life events, and years of experience in predicting burnout among a sample of 68 care staff working with looked after children. Burnout was defined as long-term Emotional Exhaustion, Depersonalisation and reduced Personal Accomplishment. The only significant predictor in the multiple regression analysis was secondary trauma for the burnout dimensions Emotional Exhaustion ($R^2 = 0.56$), Depersonalisation ($R^2 = 0.38$) and Personal Accomplishment ($R^2 = 0.33$). The utility of these findings in understanding the development of burnout in looked after child care staff are discussed, as are clinical implications and directions for future research.

KEYWORDS. Looked after child, care staff, attachment style, beliefs, secondary trauma, burnout

INTRODUCTION

Burnout has been defined as 'physical, emotional, or mental exhaustion...accompanied by decreased motivation, lowered performance, and negative attitudes towards oneself and others' (VandenBos, 2007, p.140). It is now most commonly viewed as encompassing three dimensions: Emotional Exhaustion (EE), where high levels are indicative of the depletion of emotional resources (such as motivation and sense of control); Personal Accomplishment (PA), where a reduced level equates to an individual feeling less sense of achievement and competence in their work; and Depersonalization (DP), where high levels are indicative of an individual's attempt to emotionally distance him/herself from service users (Maslach, Schaufeli, & Leiter, 2001).

Burnout is most prevalent in human service staff - individuals who are in face-to-face contact with the public to protect, maintain or enhance individuals' wellbeing (Hasenfeld, 1983; Schaufeli, 2003), particularly those who engage in emotionally challenging relationships with service users with complex needs (Bakker, Van der Zee, Lewig, & Dollard, 2006). Among these staff burnout has steadily increased over time (Thomas, Kohli, & Choi, 2014), with up to 67% of individuals experiencing the phenomenon in some services (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler 2012). Unregistered healthcare and support staff are a group of healthcare employees who are not registered by a governing body, but who execute most frontline care tasks in health and social care settings. They often experience higher levels of burnout, due to the physically and emotionally challenging work, their low status, and lack of training (e.g. Hare & Pratt, 1988; Rai, 2010). One such group includes the care staff in looked after children services.

In England, looked after children are children accommodated by or in the care of a local authority (HM Government, 2010). These children often enter the care system due to having experienced abuse and neglect (Harker & Heath, 2014). This has been defined as developmental trauma (van der Kolk, 2005), based on the multiple and repetitive exposure to interpersonal trauma, such as sexual abuse. It has been

argued that looked after children care staff play a crucial role in looked after children's 'healing' process above and beyond that of qualified staff, such as therapists, due to their direct contact with the looked after children and consequently greater opportunities to interact and make a lasting impression (Moses, 2000). The demands of this role are high, involving responsibility for the children's safety, offering emotional support, enforcing discipline and managing crises, in addition to undertaking daily tasks such as making meals and planning activities (Seti, 2007). Furthermore, staff now work with older and more traumatised children than previous generations, which poses more challenges (Heron & Chakrabarti, 2002). Further demands of the job include the unsociable working hours and low pay (Seti, 2007). Collectively these factors contribute towards this occupational group experiencing high levels of stress at work (Heron & Chakrabarti, 2002; Seti, 2007; Zerach, 2013).

Positive interactions between care staff and service users suffer greatly under staff stress; consequently staff can show less empathy, negative attitudes and interact less with service users (e.g. Kokkonen, Cheston, Dallos & Smart, 2014; Rose, Jones, & Fletcher, 1998). It is likely that the quality of care and thereby service users' recovery from adverse events is compromised, because staff are less emotionally available (Kokkonen et al., 2014). Considering that children who experience developmental trauma make up a significant proportion of the criminal justice population later in their lives and are more likely to use social and mental health services (van der Kolk, 2005), it is important to ensure the well-being of the occupational group that spends most time with these children since they have a significant influence over looked after children's development (Moses, 2000). Despite knowledge of the high levels of stress experienced by looked after children care staff, the understanding of what enhances or protects this staff group from such experiences remains limited.

Despite indications that organisational factors are highly influential on job burnout (Maslach & Leiter, 1997; Pines, 2004; Schaufeli & Janczur, 1994), some studies and reviews suggest that they do not fully explain the development of burnout and

that individual factors, such as a person's characteristics and traits, have a small yet significant influence (Bria, Baban, & Dumitrascu, 2012; Linley & Joseph, 2007; Maslach et al., 2001). For example, characteristics such as the time worked in a profession have been found to be influential. Brewer and Shapard's (2004) meta-analysis of 34 studies investigating the relationship between burnout and years of experience, which included large samples of healthcare staff, found that the newer employees are to a profession the more prone they are to experiencing burnout.

Extending the knowledge base around individuals' vulnerabilities to burnout could inform practice, such as burnout interventions and preventative measures including psycho-education for new recruits. A study by Lakin, Leon, and Miller (2008) investigated some predictive burnout factors of looked after child care staff, finding a sense of inadequate training increased EE, low levels of empathy towards service users' feelings increased DP, and poor communication between staff and service users led to lower levels of PA. However, a range of other factors including individuals' beliefs and attachment style, have been found to be influential among a variety of human service staff, such as nurses and teachers. These factors may also be predictive of burnout in care staff working in looked after children services, yet to date have not been considered in this population.

Burnout and Irrational Beliefs

Irrational beliefs have been defined as 'illogical, erroneous, or distorted ideas, firmly held despite objective contradictory evidence' (VandenBos, 2007, p. 503). They are thought to relate to burnout because it has been argued that emotions such as stress derive from people's perceptions, interpretations and evaluations of events, i.e. their beliefs about the events, rather than events themselves (Ellis, Gordon, Neenan & Palmer, 1997). Ellis (1978) argued that stressful circumstances vary significantly based on the perceptions and cognitions of those who react to these circumstances. Individuals' who adopt irrational beliefs towards their work environment may experience demands and threats in a much more stressful way than individuals who face the same stressors with a rational perspective (Bermejo-Toro & Prieto-Ursua, 2006). This link between irrational thinking and stress at work

has been researched with teachers (e.g. Bermejo-Toro & Prieto-Ursua, 2006), who experience numerous stressors such as behaviours perceived as challenging, time pressure, and student apathy (Forman, 1994). In healthcare professionals, Ohue, Moriyama and Nakaya (2011) found that irrational beliefs were indicative of burnout in a sample of nurses. Similarly, Balevre (2001) found that irrational thinking related to nurses creating unrealistic demands, which could not be met and led to frustration, stress and experiences of burnout.

Thus, it appears that a relationship exists between irrational beliefs in the caring profession and burnout. This link has been established in teachers, which raises questions about looked after children care staff's irrational thought patterns and whether these may also be linked to burnout, as both occupational groups experience similar stressors, such as responsibility of the children's safety, offering emotional support, enforcing discipline and managing difficult situations.

Burnout and Attachment

Attachment (Bowlby, 1969) has been defined as the need to form 'close emotional bonds with significant others, specifically a need for the young to maintain close proximity to and form attachments with their caregivers to ensure survival' (VandenBos, 2007, p. 82). Attachment is thought to be linked to burnout because attachment styles influence individuals' coping in stressful situations (Bowlby, 1973; Calkins & Leerkes, 2011). Attachment develops throughout childhood between children and their caregivers; the quality of this relationship determines the nature of the attachment style (secure vs. insecure) and provides individuals with a set of internal working models, namely mental representations of the self and others (Calkins & Leerkes, 2011). In adulthood, these attachment styles and associated working models continue to impact individuals' perceptions of situations, and how distress is dealt with. For example, the use of constructive strategies such as self-soothing (secure attachment), or unconstructive strategies such as cognitively and emotionally distancing oneself from others (avoidant attachment), or focusing on one's own distress and adopting emotion-focused coping strategies (anxious attachment) (Mikulincer & Florian, 1998). In addition to individual coping in stressful

situation, the internal working models, and subsequently developed coping strategies are also likely to impact individuals' ability to care for others. Securely attached individuals might find it easier to provide care, because they may have benefited from good care themselves, furnishing them with a sense of security and positive internal working models (Mikulincer, Shaver, Gillath, & Nitzberg, 2005). Those who are insecurely attached might find it more difficult to care for others, due to a sense of attachment insecurity based on a negative working model, which heightens a need for self-protection and thus an internal focus, leaving little resources for caregiving (Mikulincer et al., 2005). Thus, staffs' attachment could bias their appraisal of situations at work especially if these involve caregiving tasks, which may contribute toward the development of burnout through the use of ineffective coping strategies.

The link between attachment styles, caregiving and burnout has been confirmed; Kokkonen et al. (2012), Pines (2004) and Ronen and Mikulincer (2009) researched a range of staff including human service employees and dementia carers, finding a relationship between insecure attachment and burnout. Looked after children often display prominent behavioural challenges, such as controlling or attention-seeking behaviours, due to the insecure attachment styles they are known to have. The challenging and stressful situations, which arise from these attachment-seeking behaviours, are likely to trigger staffs' coping strategies. Based on their attachment style these may be adaptive or maladaptive in relieving stress, and are therefore likely to enhance or protect individuals from experiencing burnout.

Burnout and Secondary Trauma

Secondary trauma (also known as vicarious trauma or compassion fatigue) has been defined as 'the stress resulting from helping or wanting to help a traumatised or suffering person' (Figley, 1995, p. 7). Symptoms of this phenomenon include: Intrusion, e.g. reminders of distressing events; Avoidance, e.g. efforts to avoid trauma related thoughts and feelings; and Arousal, e.g. irritability or outbursts of anger (Figley, 1999), which may occur in people who work or interact with traumatised individuals. These symptoms are nearly identical to those of post-

traumatic stress disorder (PTSD), the difference being that direct exposure to a traumatising event experienced by person A becomes a traumatising event for person B, who interacts with person A (Figley, 1999). In relation to work environments it has been established that staffs' own previous stressful life events, such as a life threatening illness, increase vulnerability to experiencing secondary trauma (e.g. Collins & Long, 2003).

Secondary trauma has been linked to burnout because it may increase an individuals' vulnerability to stress. For example, Latter (2004) found that secondary trauma leads to an increase in psychological distress and burnout, and Ray, Wong, White and Heaslip (2013) found low levels of secondary trauma predictive of low burnout in frontline care professionals. Despite burnout and secondary trauma being conceptualised similarly (Jenkins & Baird, 2002), researchers have emphasised their differences (e.g. Canfield, 2005; Figley, 1995; Sprang, Craig, & Clark, 2011). Burnout is a general stress phenomenon, which develops gradually over time and may occur within any social service or healthcare setting as a result of non-traumatic causes, such as a high workload. On the contrary, secondary trauma can emerge suddenly and without warning and is related to working or interacting with trauma populations and being exposed to descriptions of violent events and trauma related re-enactments (Figley, 1999).

Research has repeatedly established that individuals in the helping professions, such as therapists (Jenkins & Baird, 2002), who work with traumatised individuals, are prone to experiencing secondary trauma. As such, care staff for looked after children are unlikely to be immune to such experiences, as traumatised children have been found to act out the abuse they have endured against themselves and others, such as specific fears or fantasies or behaviours that occurred during traumatic events (e.g. Armsworth & Hoaday, 1993). Thus, care staff who spend significant time with looked after children are often at the receiving end of these re-enactments (Furnivall & Grant, 2014). Considering the likelihood of care staff experiencing secondary trauma, due to exposure to indirect traumatic material by looked after children, and burnout due to working conditions and high levels of

stressors, it bears the question how and if secondary trauma and burnout are related in this occupational group.

The aforementioned potentially predictive factors for burnout have also been found to interlink. For example, Ein-Dor, Doron, Solomon, Mikulincer and Shaver (2010) found attachment insecurities were related to the severity of secondary trauma experiences, while Riggs and Han (2009) found perceived trauma and insecure adult attachment predicted irrational beliefs. Such evidence supports the investigation of these factors collectively as they appear to co-occur.

Understanding which factors are associated with burnout in looked after children care staff may add important knowledge, and could aid the development of evidence-based interventions. Findings may also increase the quality of care for looked after children by supporting care staff. The present study, therefore, aims to explore the influence of: beliefs, attachment, and secondary trauma as the main predictors, and time worked with looked after children and experiences of stressful life events as the secondary predictors, in the development of burnout in looked after children care staff. It is therefore hypothesised that:

- 1) Having more irrational beliefs, secondary trauma, and attachment-related anxiety and avoidance predicts burnout experiences in looked after children care staff.
- 2) Having experienced more stressful life events and having less experience working with looked after children further predicts burnout in looked after children care staff.

METHOD

Design

The study design is based on an epistemological position of critical realism, acknowledging the presence of subjectivity within the production of knowledge (Madill, Jordan, & Shirley, 2000). Findings are thus tentative and should be replicable (Barker, Pistang, & Elliott, 2002). In the present study a cross-sectional

design was employed to quantitatively explore the influence of the predictor variables, namely: beliefs, secondary trauma, attachment-related anxiety and avoidance, time worked with looked after children, and stressful life events on burnout. A power calculation for a hierarchical regression with four predictors in step one and two in step two based on a medium effect size (0.15), with power at 0.8 and alpha at 0.05, suggested a sample of 71 participants were required (Soper, 2015).

Procedure

The research project was approved by the private care home provider (see Appendix E) and Staffordshire University's Faculty of Science Ethics and Peer Review Panel (see Appendix F). Care home managers were contacted (see Appendix G) to arrange attendance at team meetings, where the principal researcher explained the research purpose, gave an opportunity for questions and invited care staff to participate. Participants were offered the choice of completing the questionnaires as part of the team meetings or returning the questionnaire to the researcher in a stamped addressed envelope. Each potential participant received an envelope including: a research information sheet with contact details (see Appendix H), a consent form (see Appendix I), questionnaire pack (see Appendix J), and a debrief form (see Appendix K). Participants who wished to participate in a 30 minute protected time slot as part of the team meeting signed the consent form and subsequently completed the questionnaire pack whilst the researcher waited in another room. Care staff who were not present at the team meetings were forwarded the participation pack. Participants were informed that consent forms and questionnaires were kept separately and primarily viewed by the principal researcher, to maintain confidentiality.

Participants

A total of 68 residential care staff, with at least three months' experience were recruited from sixteen residential children's homes based in the Midlands, managed by one private care provider (see Table 1). Thus, this study was slightly underpowered.

Table 1

Demographic information of participants

Demographic Factor		Participant Information
Age	21-30	20 (29.4%)
	30-40	19 (27.9%)
	40-50	18 (26.5%)
	50-60	10 (14.7%)
	60+	1 (1.5%)
Gender	M	39 (57.4%)
	F	27 (39.7%)
Time worked with looked after children		Range = 3 months – 22 years M = 6 years, 2.5 months (SD = 4 years, 11.4 months)

Measures

Demographic information was collected on: gender, age, and time worked in the looked after children service. The following self-reported questionnaires were utilised and where applicable consent was sought from authors and licenses purchased (see Appendix D). The completion of all measures took approximately 20-30 minutes.

The Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981)

This measure encompasses three subscales assessing EE, DP and PA and consists of 22 items. Participants rate the frequency of each statement using a six-point Likert-type scale (0=never to 6=every day). For the human service version of the MBI, scores of 27 or above on the EE scale have been deemed high (denoting burnout), 17-26 moderate, and 0-16 as low. For DP, a score of 13 or above has been deemed as high (denoting burnout), 7-12 moderate and 0-6 low. For PA, a

score of 39 or above has been deemed high (disproving burnout), 32-38 moderate and 0-31 low (Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1996). All subscales have good internal consistency (Cronbach's alpha: .87 EE, .68 DP, .76 PA; Hastings, Horne & Mitchell, 2004). For the present sample the alpha reliability was .92 for EE, .70 for DP and .80 for PA, deemed excellent to acceptable based on guidelines by George and Mallery (2003).

Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2003)

This measure consists of 17 items, offering an overall secondary trauma score, and comprises of three subscales assessing intrusion, avoidance and arousal. Participants rate the frequency of each statement over the previous seven days on a five-point Likert-type scale (1=never to 5=very often). The intrusion subscale scores range from 5-25, avoidance 7-35, and arousal 5-25, with higher scores indicating more distress. Ting, Jacobson, Sanders, Bride and Harrington (2005) found no improvement in the goodness of fit between a single factor or three factor model when comparing the overall secondary trauma scale with the individual subscales in a factorial analysis, however high inter-correlations between the subscales suggest difficulty in differentiating between them. It is therefore appropriate to use the scale for an overall score, while the individual subscale scores need to be viewed with caution. The measure has yielded good internal consistency in the past (alpha reliability: .94 overall, .83 intrusion, .89 avoidance, .85 arousal; Bride et al., 2003). Although there are no clearly defined cut-off scores (Hope, 2006), an overall score of 38 or higher has been suggested as clinically significant (Bride & Jones, 2006). For the present sample the alpha reliability ranged from excellent to acceptable (.93 overall, .73 intrusion, .87 avoidance, .81 arousal).

The Experiences in Close Relationships-Revised Questionnaire (ECR-R; Fraley, Waller, & Brennan, 2000)

This measure consists of 36 items, with two subscales assessing attachment-related anxiety and attachment-related avoidance. Participants rate how they generally experience relationships on a seven-point Likert-type scale (1=strongly

disagree to 7=strongly agree). Scores range from 18-126 on both scales, with a higher score indicating more attachment related anxiety or avoidance (Fraley et al., 2000). It has previously been determined that the two subscales have high alpha reliability (.93 avoidance, .94 anxiety; Sibley & Liu, 2004). Similarly, for the present sample the alpha reliability was high (.93 avoidance, .94 anxiety).

Irrational Belief Scale (BS; Malouff & Schutte, 1986)

The scale comprises twenty items concerning irrational beliefs on a five-point Likert-type scale (1=strongly disagree to 5=strongly agree). Scores range from 20-100 and a higher score indicates a more irrational thinking style. The internal consistency of this measure in a large sample has been established as .80 (Malouff & Schutte, 1986). For the present sample the alpha reliability was deemed good at .79.

Stressful Life Events Screening Questionnaire-Revised (Life Events; Goodman, Corcoran, Turner, Yuan, & Green, 1998)

To identify the number of stressful life events experienced by participants without enquiring further about information regarding these events, this measure was adapted with the authors' permission. Participants were asked the original thirteen questions with a yes or no option. If yes was answered participants were asked to indicate the number of times a stressful life event had been experienced. Additional questions featured on the original measure, such as age when experienced and duration, were omitted, as this information was not required for the present study. The total number of self-reported stressful life events was utilised for further analysis. This measure in its original format has been found to have good test-retest reliability and convergent validity of the trauma events ($k=.73$, and $.64$, respectively; Goodman et al., 1998).

Analysis

Data were analysed using SPSS Statistics software (version 22; IBM Corp., 2013). Multiple regression was first employed to explore the relationship between variables in predicting burnout scores, with an aim of subsequently exploring the variables in a hierarchical regression to maximise precision of the models. The data set (see

Appendix L) was initially screened for missing and inaccurate data, and then checked for bias and statistical assumptions of regression by investigating normality through skew and kurtosis, the influence of outliers, heteroscedasticity, and multicollinearity. Seven outliers were identified in the sample, however their inclusion in the analysis did not unduly influence the regression model and were thus not removed. There was some evidence of heteroscedasticity and most variables (apart from MBI PA and BS) were positively skewed. Due, therefore, to the significant violation of the statistical assumptions of heteroscedasticity and normality, the multiple regression was run using bootstrapping for EE and DP (PA did not violate assumptions). Bootstrapping is a nonparametric approach that produces an estimate of the samples' distribution by repeatedly resampling the available data. This produces valid standard errors and confidence intervals, which do not rely on the assumption of normally distributed data.

RESULTS

Descriptive Statistics

Descriptive statistics are summarised in Table 2. Overall, participants reported moderate experiences of EE ($M=19.5$, $SD=11.48$), DP ($M=7.42$, $SD=5.68$) and PA ($M=34.16$, $SD=8.06$). In regards to secondary trauma, staff scored moderately high on the total STSS score ($M=34.69$, $SD=11.96$), yet below clinical significance (Individual scales: Intrusion $M=9.55$, $SD=3.17$; Avoidance $M=14.41$, $SD=5.98$; Arousal $M=10.72$, $SD=3.83$). Staff rated low on both attachment scales, namely attachment related avoidance ($M=47.46$, $SD=26.36$), and attachment related anxiety ($M=36.52$, $SD=21.74$). For the BS, staff scored moderately high on irrational thinking ($M=58.94$, $SD=9.91$). Finally, staff reported having experienced around three stressful life events on average, ranging from 0 to 13 ($M=3.07$, $SD=2.78$).

Correlations

The correlation analyses are summarised in Table 2. MBI EE was strongly positively correlated with STSS ($r=.70$, $p<.01$), moderately with ECR-R anxiety ($r=.33$, $p<.01$) and avoidance ($r=.36$, $p<.01$), and weakly with BS ($r=.25$, $p=.02$), suggesting that

people with high EE experienced more secondary trauma, attachment anxiety and avoidance and irrational beliefs. DP was strongly correlated with STSS ($r=.56$, $p<.01$) and weakly with ECR-R anxiety ($r=.25$, $p=.03$) and BS ($r=.28$, $p=.01$), suggesting that people with higher DP also experienced more secondary trauma, as well as attachment anxiety and irrational beliefs. MBI PA was strongly negatively correlated with STSS ($r=-.56$, $p<.01$), meaning that people with low PA experienced more secondary trauma. Some of the independent variables showed significant correlations, however no multicollinearity issues were identified (see Table 2).

Table 2

Descriptive statistics and Pearson's correlations between criterion variables (MBI EE, DP & PA) and predictor variables (secondary trauma, beliefs, attachment related anxiety and avoidance, time worked with looked after children, and stressful life events).

	MBI EE	MBI DP	MBI PA	STSS	BS	ECR-R Anx.	ECR-R Avoid.	Time looked after children	Life Events
Mean (SD)	19.5 (11.48)	7.42 (5.68)	34.16 (8.06)	34.69 (11.96)	58.94 (9.91)	36.52 (21.74)	47.46 (26.36)	74.5 (59.4)	3.07 (2.78)
MBI EE	1								
MBI DP	--	1							
MBI PA	--	--	1						
STSS	.70**	.56**	-.56**	1					
BS	.25*	.28*	-.17	.27*	1				

ECR-R Anx.	.33**	.25*	-.20	.37*	.38**	1			
ECR-R Avoid.	.36**	.19	-.21	.29*	.21*	.62**	1		
Time looked after children	.14	.10	-.16	.27*	.03	.06	.04	1	
Life Events	.12	.14	-.16	.11	-.08	.18	.23*	.01	1

* <0.05, **<0.01

Note: MBI= Maslach Burnout Inventory, EE= Emotional Exhaustion, DP= Depersonalisation, PA=Personal accomplishment, STSS = Secondary Trauma Stress Scale, BS = Belief Scale, ECR-R = The Experiences in Close Relationships-Revised Questionnaire, Time looked after children= time worked with looked after children, Life events = significant life events.

Regression Analysis

To investigate the relationship between secondary trauma, attachment related anxiety and avoidance, beliefs, time worked with looked after children, and significant life events in predicting the burnout scales EE, DP and PA, an initial multiple regression was carried out. All potential predictors were included at this stage (see Table 3). Bootstrapping was employed due to violations to normality in EE and DP, with similar findings to the regression analysis (see Appendix M).

Table 3

Initial standard multiple regression analysis of secondary trauma, beliefs, attachment-related anxiety and avoidance, life events, and time worked with looked after children, as predictors for the burnout scales EE, DP and PA.

	<i>B</i>	<i>SE</i>	β	<i>p</i>
Regression 1: MBI EE				
Constant	-7.94	6.77		.25
STSS	.64	.10	.66	<.001
BS	.05	.12	.05	.66
ECR-R Anx.	-.02	.07	-.04	.78
ECR-R Avoid.	.09	.06	.19	.12
Life events	-.04	.38	-.01	.93
Time looked after children	-.01	.02	-.06	.53
Regression 2: MBI DP				
Constant	-6.33	4.06		.13
STSS	.26	.06	.54	<.001
BS	.08	.07	.15	.23
ECR-R Anx.	-.004	.04	-.02	.92
ECR-R Avoid.	.004	.03	.02	.90
Life events	.13	.23	.06	.57
Time looked after children	-.01	.01	-.07	.53

Regression 3: MBI PA				
Constant	49.56	5.61		<.001
STSS	-.37	.08	-.55	<.001
BS	-.02	.10	-.03	.81
ECR-R Anx.	.02	.05	.07	.67
ECR-R Avoid.	-.03	.05	-.09	.55
Life events	-.16	.32	-.06	.62
Time looked after children	.004	.02	.03	.81

Note. B=unstandardised regression coefficients, SE=Standard error, β =standardised regression coefficients.

The models were significant for all three scales: For EE ($F_{6, 62}=10.58$, $p<.001$) the model explained 53% (R^2) of the variance, 48% when adjusted. For DP, the model ($F_{6, 62}=5.01$, $p<.000$) explained 35% (R^2) of the variance, 28% when adjusted. Finally, for PA ($F_{6, 62}=4.49$, $p=.001$) the model explained 33% (R^2) of the variance, 25% when adjusted. Secondary trauma was a significant predictor of all three MBI scales, with a positive relationship between secondary trauma and EE ($\beta=.66$, $p<.001$) and DP ($\beta=.54$, $p<.001$), and a negative relationship between secondary trauma and PA ($\beta=-.55$, $p<.001$). However, the remaining predictors were not significant (see Table 3), meaning that they have not influenced burnout in the present sample. Due to a single significant predictor identified a hierarchical regression became redundant.

In order to maximise precision of the model, all non-significant predictors were removed and regressions re-run with secondary trauma as an individual predictor for all three burnout scales (see Table 4). The models were significant for all three scales: for EE ($F_{1,67}=70.46$, $p<.001$) the model explained 51.6% (R^2) of the variance, 50.9% when adjusted. For DP ($F_{1,67}=28.78$, $p<.001$) the model explained 30.4% (R^2) of the variance, 29.3% when adjusted. For PA ($F_{1,67}=24.98$, $p<.001$) the model explained 27.5% (R^2) of the variance, 26.4% when adjusted. Secondary

trauma was a significant predictor of all three MBI scales, with a positive relationship between secondary trauma and EE ($\beta = .72$, $p < .001$), and DP ($\beta = .55$, $p < .001$), and a negative relationship between secondary trauma and PA ($\beta = -.52$, $p < .001$).

Bootstrapping was employed due to violations to normality in EE and DP, confidence intervals (95%) of the bootstrapping results further support a positive relationship between secondary trauma and EE (CI: .51, .86) and DP (CI: .14, .36), in line with the confidence intervals of the standard multiple-regression results (see Table 3). A negative relationship was also established between secondary trauma and PA (CI: -.49, -.21), meaning that secondary trauma is a strong predictor for high EE and DP, as well as low PA.

Table 4

Regression analyses of the significant variable secondary trauma predicting MBI EE, DP and PA.

	Standard Multiple Regression						Bootstrapping			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	95% CIs		Bias	SE	95% CIs	
					Lower	Upper			Lower	Upper
Regression 1: MBI EE										
Constant	-4.44	3.01		.15	-10.46	1.58	.07	2.95	-10.15	1.66
STSS	.69	.08	.72	<.001	.53	.85	-.003	.09	.51	.86
Regression 2: MBI DP										
Constant	-1.66	1.79		.36	-5.23	1.91	.12	1.90	-5.02	2.44
STSS	.26	.05	.55	<.001	.16	.36	-.004	.06	.14	.36
Regression 3: MBI PA										
Constant	46.41	2.59		<.001	41.24	51.58				
STSS	-.35	.07	-.52	<.001	-.49	-.21				

Note. Bootstrapping based on 611-1000 bootstrap samples for EE and DP, *p*=probability, CIs=Confidence intervals.

Due to secondary trauma being a highly significant predictor for the burnout dimension, further multiple regressions were run to investigate the relationship between the individual secondary trauma subscales of intrusion, avoidance and arousal in predicting the burnout scales EE, DP and PA. This may demonstrate the most influential dimensions of secondary trauma on burnout and thereby aid clinical implications. The findings are shown in Table 5. The models were significant for all three scales: For EE ($F_{3, 64}=24.77, p<.001$) the model explained 54% (R^2) of the variance, 52% when adjusted. For DP, the model ($F_{3, 64}=11.15, p<.001$) explained 34% (R^2) of the variance, 31% when adjusted, and for PA, the model ($F_{3, 64}=8.65, p<.001$) explained 29% (R^2) of the variance, 26% when adjusted. Only the secondary trauma avoidance scale was a significant predictor of MBI EE ($\beta=.54, p=.002$) and DP ($\beta=.57, p=.006$), but not PA ($\beta=-.39, p=.07$).

Confidence intervals (95%) of the bootstrapping results further support a positive relationship between secondary trauma avoidance and EE (CI: .49, 1.62) and DP (CI: .19, .93), in line with the confidence intervals of the standard multiple-regression (see Table 5).

Table 5

Findings of standard multiple regression and bootstrapping analyses of secondary trauma intrusion, avoidance and arousal as predictors of MBI EE, DP and PA.

	Standard Multiple Regression					Bootstrapping				
	<i>B</i>	<i>SE</i>	β	<i>p</i>	95% CIs		Bias	SE	95% CIs	
					Lower	Upper			Lower	Upper
Regression 1: MBI EE										
Constant	-2.35	3.29		.48	-8.92	4.23	-.01	3.01	-8.28	3.40
STSS Intru.	-.06	.46	-.02	.90	-.97	.86	.002	.40	-.82	.70
STSS Avoid.	1.04	.32	.54	.002	.39	1.68	.007	.29	.49	1.62
STSS Arou.	.70	.47	.23	.14	-.25	1.64	-.01	.46	-.19	1.61
Regression 1: MBI DP										
Constant	-.14	1.94		.94	-4.02	3.74	.18	2.09	-4.01	4.48
STSS Intru.	-.22	.27	-.12	.42	-.76	.32	-.01	.30	-.83	.35
STSS Avoid.	.54	.19	.57	.006	.16	.92	.009	.19	.19	.93
STSS Arou.	.18	.28	.12	.53	-.38	.73	-.02	.32	-.50	.73
Regression 1: MBI PA										
Constant	45.29	2.86		<.001	39.57	51.01				
STSS Intru.	.09	.40	.03	.83	-.71	.88				
STSS Avoid.	-.52	.28	-.39	.07	-1.08	.04				
STSS Arou.	-.41	.41	-.20	.32	-1.23	.41				

Note. Intru.=Intrusion, Avoid.=Avoidance, Arou.=Arousal. Bootstrapping based on 611-1000 bootstrap samples for EE and DP.

DISCUSSION

The present study examined the relationship between the variables of attachment styles, irrational beliefs, secondary trauma, time worked with looked after children, and previous stressful life events, in predicting burnout in looked after children care staff. To date this is the only known study exploring these factors in this population. The regression analyses identified secondary trauma as the only predictor of burnout in this study, in all three burnout dimensions. Thus, the first hypothesis was partly supported, however none of the other variables reached significance, thereby not supporting the remaining first hypothesis of attachment style and beliefs influencing burnout, or the second hypothesis of more experience and stressful life events influencing burnout. The finding is in keeping with Latter's (2004), Ray et al.'s (2013), and Mealer et al. (2009) discoveries of directional relationships between secondary trauma and burnout. A further analysis of the three subscales of the STSS separately, namely avoidance, arousal and intrusion, was conducted and avoidance was found to be the only significant predictor for EE and DP, and approaching significance for the PA scale.

It is well known that avoidance in PTSD maintains some of the associated adverse symptoms, such as anxiety and flashbacks, due to individuals not confronting the negative feelings of trauma experiences, thereby preventing change in the nature of the trauma memory into context (Ehler & Clark, 2000). Based on the similarity between the concepts of PTSD and secondary trauma (e.g. Figley, 1999), it is likely that care staff for looked after children have similar experiences in relation to the secondary trauma they experience working with looked after children. Avoidance may help staff manage the negative emotions related to working with traumatised children in the short-term, yet prevents staff from confronting their emotions and relating to the looked after child trauma, maintaining negative symptoms in the long-term, which may develop into burnout.

The task of caring for looked after children is undoubtedly draining (e.g. Seti, 2007). To try and manage this staff may aim to conserve their physical and emotional

resources by withdrawing from situations during and outside of work and becoming vigilant for signs of fatigue and exhaustion (Tyrrell, 2010). This is similar to the avoidance among individuals with chronic fatigue syndrome (CFS). Butler, Chalder, Ron and Wessely (1991) argued that avoidant behaviour in CFS sustains symptoms of exhaustion by decreasing activity tolerance and increasing sensitivity to any stimulation. While the triggers for fatigue are perhaps different between looked after children care staff and individuals with CFS, drained looked after children care staff appear to also avoid interactions, thereby probably restricting positive experiences, and perhaps becoming hypervigilant to negative emotions and symptoms of exhaustion. This is likely to sustain symptoms (Butler et al., 1991) by limiting staff to regain resilience to stressors through experiences that confirm the ability to manage such situations. This may further cause avoidance from looked after children, work colleagues and peers. The avoidance and withdrawal are coping strategies, which in the long-term can lead to DP (see Figure 1), which is similar in nature to avoidance. However, while avoidance is a behaviour, which involves keeping away from particular situations and environments (VandenBos, 2007) in an effort to avoid painful and negative emotions, DP is the global blunting of emotions (VandenBos, 2007). With time the use of avoidance as a coping strategy may lead to higher levels of DP (Tyrrell, 2010). Thus, working with traumatised children is draining and may raise challenges of secondary trauma in staff, which is likely to cause negative feelings. To cope, staff may engage in avoidance at work and in their private lives. In the long-term this may lead to decreased activity to preserve resources and hypervigilance of fatigue symptoms, which may exacerbate these symptoms and further encourage avoidance. This can develop into a cynical view (DP) about the looked after children and work, to further cope with these difficulties.

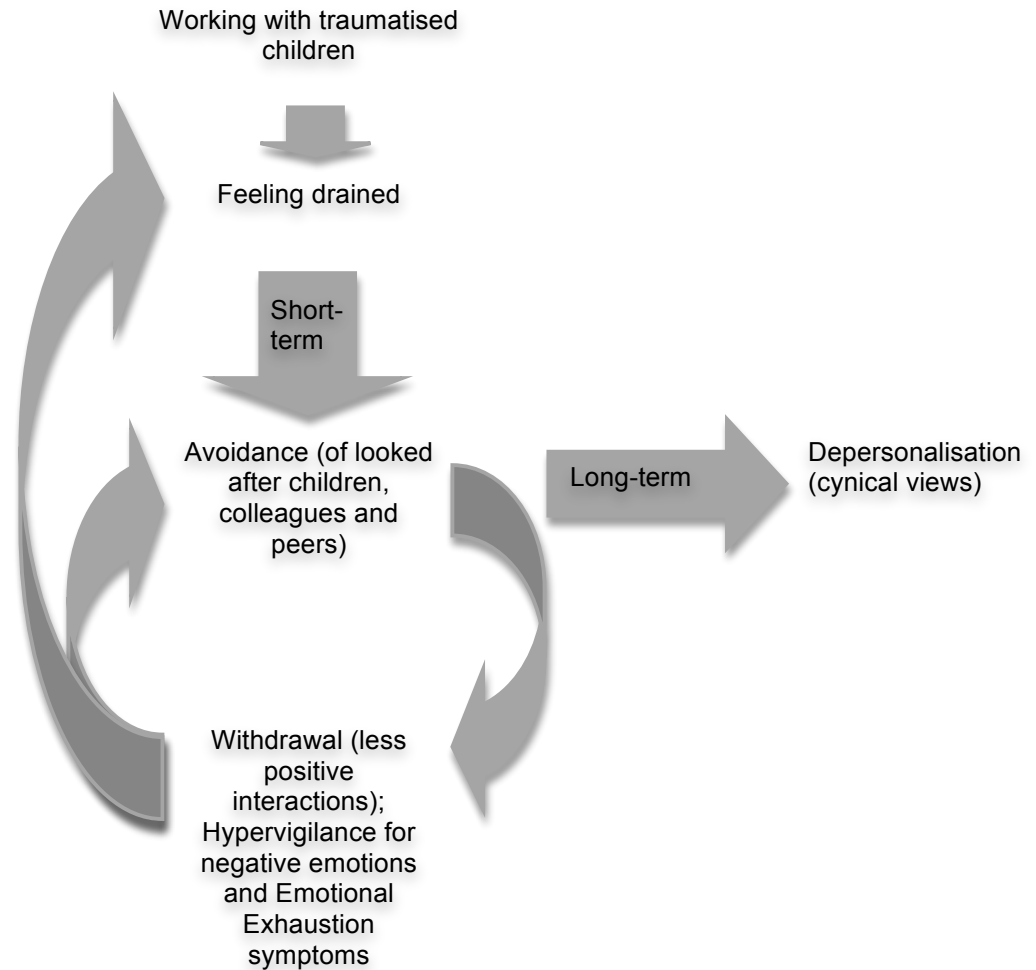


Figure 1. Possible cyclical process of staff's coping strategies through avoidance and Depersonalisation.

The findings of attachment and irrational beliefs not predicting burnout in this sample is not consistent with published literature. Kokkonen et al. (2012), for example, found attachment insecurity to be associated with burnout. The attachment variables in this sample were positively skewed, with few participants experiencing attachment anxiety and avoidance. This may explain the present findings, as there may have been a small effect undetectable considering the sample size. This is supported by the correlation analysis, which found significant correlations between the burnout dimensions and attachment related anxiety and avoidance, indicating a relationship exists.

Even though the sample reported significant irrational beliefs, and the variable was not skewed, such beliefs did not predict burnout in the regression model. This finding is thus also at odds with previous research, such as Ohue et al. (2011). However, it needs to be noted that Ohue et al. (2011) utilised an irrational belief measure, namely a brief version of the Irrational Belief Scale by Matsumura (1991), which produces five factors. Their findings indicate significant associations between three of the five factors and the burnout dimensions. This indicates that some irrational beliefs may be associated with burnout, while others are not. Thus, the measure utilised in the present study may have lacked specificity to distinguish between different types of irrational beliefs.

Time worked with looked after children was not found to predict burnout in this study, thereby showing inconsistency with previous research (Brewer & Shapard, 2004). However, this finding should be viewed with caution, because participants in this study were quite experienced with an average of 6 years and 2.5 months, with fewer inexperienced participants, indicating skewness. Thus whilst inexperience might predict burnout, in this more experienced sample other factors may have contributed more towards differences in burnout. Furthermore, it appears that the samples' experience of 3 stressful life events on average did not affect burnout. It is therefore unlikely that the ongoing effects of previous trauma influenced the findings. Reasons for this may be that individuals had processed the prior trauma, or that only trauma considered less relevant to the work environment of looked after children care staff were reported.

Limitations

The study was slightly under-powered for a medium effect size, the low number of participants for a regression study is likely to have limited the results, as small effects would not have been identifiable among the sample. For example, considering that the majority of individuals in the general population, around 56%, are securely attached (e.g. Timmerman & Emmelkamp, 2006), this may explain the findings of low attachment anxiety and avoidance. A larger sample would be

required to adequately represent a range of attachment styles and identify their influence on burnout. The findings indicated a highly significant correlation between MBI EE and attachment-related anxiety and avoidance, suggesting a relationship exists. Thus, the findings appear inconclusive in relation to the influence of attachment on burnout in looked after children care staff. Additionally, the results of this sample did not fit a normal distribution for most variables, including attachment, and thus the generalisability of the results is therefore difficult, further limiting the results.

A clear relationship appears to exist between secondary trauma and burnout, as indicated in previous research (e.g. Mealer et al., 2009). The significant regression results in this study further support this. However, while most researchers argue for two distinct concepts of secondary trauma and burnout (e.g. Canfield, 2005), others have hypothesised that they are similar in nature (e.g. Jenkins & Baird, 2002). In this study the two variables did not indicate collinearity, thereby demonstrating a difference between the concepts. However the significant and moderate correlation may suggest that the variables over-lap somewhat, which was further suggested by McLean, Wade and Encel (2003). Furthermore, while secondary trauma was identified as a predictor of burnout, in line with previous research (e.g. Latter, 2004; Mealer et al., 2009; Ray et al., 2013), other researchers have found the opposite, with burnout acting as a predictor for secondary trauma (e.g. Hinderer et al., 2014). Thus, the present study further identified a link between both concepts, yet the full nature of the relationship requires further attention and does not yet appear conclusive.

Informal discussions with staff during data collection identified organisational factors as a potential influence on burnout, which was also supported by Lakin et al. (2008), who identified managerial support as influential among this population. Thus, the present findings are unlikely to reflect all the influential factors of burnout in looked after children staff, as secondary trauma did not account for all of the variance in the regression model, which indicates that other predictors may further add to the

model. This warrants further investigation into a variety of influences, including organisational factors, such as managerial and peer support.

Clinical and Research Implications

The findings of the present study, namely the significant levels of burnout and secondary trauma in looked after children care staff, raises questions about the support networks in place. To date, this occupational group appears to receive little training and support in their roles (e.g. Rai, 2010) and as such have little opportunity to develop skills to counteract burnout and secondary trauma. In comparison, other professional groups in contact with looked after children, such as therapists, regularly receive supervision and are required to engage in continual professional development (Moses, 2000), which may aid their development of coping strategies and thus reduce the likelihood of developing burnout. This appears at odds considering the long hours care staff spend with traumatised children, and the influences they can have on their recovery (Moses, 2000). It is thus felt that the distribution of support needs to be reconsidered with equal emphasis towards care staff.

While remembering the infancy of this research area and the study's limitations, the present findings report that secondary trauma, and secondary trauma avoidance in particular, predicted burnout in the present sample of looked after children care staff. Among this sample, secondary trauma was moderate, yet did not reach clinical significance. This indicates that staff may already have some coping strategies and resources to draw on. It would be important to identify and build on these skills. This may be achieved as part of a training programme aimed at reducing secondary trauma to promote wellbeing. Recently, a systematic review identified an overall lack of research into interventions for secondary trauma (Bercier & Maynard, 2014). Nonetheless, some models have been developed, such as Gentry, Baranowsky and Dunning's (2002) five-session Accelerated Recovery Programme (ARP) for Compassion Fatigue (a term which has been used interchangeably with secondary trauma, e.g. Figley, 1995), which is aimed at staff working with traumatised individuals. In this training, resilience is facilitated by

arousal reduction methods in addition to prevention skills, such as symptom identification, which are taught to staff in an effort to reduce adverse symptoms. Clinical Psychologists with their competencies in training staff on a variety of mental health topics, as well as their evaluation, and research skills (British Psychological Society, 2010), can contribute towards training programmes like this through facilitation and subsequently evaluation and dissemination of the interventions' effects. Improving secondary trauma may not only aid staff wellbeing, but also support service users, because low stress levels in staff foster positive relationships, which promote service users' wellbeing (e.g. Kokkonen et al., 2012; Rose et al., 1998). However, the paucity of evidence warrants further research before conclusions can be made about the effectiveness of training programmes on secondary trauma and subsequent burnout.

To further identify looked after children care staffs' needs, future research should further investigate the contribution of both personal and organisational factors to burnout. A sufficient number of participants would allow for clear links and smaller effects to be identified, such as the influence of attachment styles. Such findings would further identify looked after children care staffs' needs and should be utilised to tailor intervention programmes for this staff group.

CONCLUSION

This study found that secondary trauma is a highly significant predictor for all three burnout dimensions, namely EE, DP and PA. Furthermore, secondary trauma avoidance specifically was found to be highly predictive of the burnout dimensions EE and DP. None of the other predictors were found to predict burnout in this sample. However, the results need to be considered in light of the study's limitations, such as the limited sample size, and the impact of violations to normality, which limits the generalisability of these findings. Investigating the role of different factors in relation to burnout may be useful to inform future interventions for both secondary trauma and burnout in looked after children care staff, and is therefore encouraged.

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APPENDICES

Appendix D

Licences and permissions to use questionnaires.

a) MBI Licence purchase receipt.

Mind Garden: Sales Receipt for Order 29569

Subject: Mind Garden: Sales Receipt for Order 29569

From: info@mindgarden.com

Date: 20/01/2014 15:38

To: [REDACTED]

CC: info@mindgarden.com, bobmost@msn.com, mindgardeninfo@gmail.com, ken@mindgarden.com

The following order was placed with Mind Garden, Inc. Your order contains at least one PDF product. Please follow the instructions below to login to your account on our Transform system and access your PDFs.

We appreciate your business. If you have any questions about your order please contact us by either replying to this e-mail or calling our office at 1-650-322-6300.

How to login to your Transform account

Transform is a web-based survey, assessment, and document-storage system by Mind Garden, Inc. You will need to establish your identity (login) in Transform (if you haven't already done so). For this process, your User ID will be your email address; you will set your own password. To begin the login process, click on the link below. You may need to copy and paste this URL into your web browser if clicking on the URL does not work.

Login: <http://www.mindgarden.com/login/270211/264943>

Email: [REDACTED]

As always, we are available weekdays (US) to answer any questions you may have. Reach us by email by going to the "Contact" link on our website <http://www.mindgarden.com/contact.htm>, or call us at 650-322-6300 (US Pacific).

Sales Receipt for Order 29569

Placed on Monday, January 20, 2014 at 7:38 am (PST, UTC-8)

Ship To:

Eve Klama



Bill To:

Eve Klama





Product	Code	Quantity	Price/Each	Total
MBI Reproduction License Human Services Survey Licenses: 100 Format: downloadable PDF file	MBI-License	1	\$110.00	\$110.00
Shipping: Online Product Delivery:				\$0.00
Sales Tax:				\$0.00
Order Total:				\$110.00

This order has been paid in full.

Our privacy policy is available [here](#)

Returns and Exchanges:

- If a shipment is refused, the customer is responsible for the return shipping costs. This amount will be deducted from the credit.
- Manuals or Workbooks which we print and ship to you may be returned within thirty days of purchase. To receive credit (minus shipping charges), products must be in resaleable condition and accompanied by a copy of the original sales receipt.
- Returns must be sent to Mind Garden by certified mail or other traceable method.
- Prior to returning a manual, please contact Mind Garden via phone or email for return authorization.

b) Belief scale permission from author.

FW: Enquiry about Belief Scale

Subject: FW: Enquiry about Belief Scale

From: KLAMA Eve Katrin <[REDACTED]>

Date: 23/01/2014 22:36

To: [REDACTED]

From: John Malouff [jmalouff@une.edu.au]

Sent: Sunday, May 26, 2013 7:48 AM

To: KLAMA Eve Katrin

Subject: RE: Enquiry about Belief Scale

Hi Eve, I have attached the scale and an article about it. You may use it for research purposes.

Regards,
John

From: KLAMA Eve Katrin <[REDACTED]>

Sent: Saturday, May 25, 2013 12:28 AM

To: John Malouff

Subject: [SPAM?] Enquiry about Belief Scale

Importance: Low

Dear Professor Malouff,

My name is Eve Klama, I am a Trainee Clinical Psychologist at Staffordshire University in the UK. I am currently planning my doctoral thesis, looking into variables which predict burnout and vicarious trauma in care staff. As one of my measures I was hoping to use your 28-item Belief Scale (or MSBS). I was wondering whether you could email me a version of this scale (and any related articles if possible) as I am unfortunately unable to access it through my University account. Would you also give your permission for me to use it for research purposes?

I'd be very grateful.

Thank you very much.

Best wishes,

Eve Klama

—Attachments:

belief.doc	24.5 kB
Belief Scale article JCCP 1986.pdf	245 kB

c) Secondary Traumatic Stress Scale permission from author.

FW: Secondary Traumatic Stress Scale

Subject: FW: Secondary Traumatic Stress Scale
From: KLAMA Eve Katrin <[REDACTED]>
Date: 23/01/2014 22:29
To: [REDACTED]

From: Brian Bride [bbride@uga.edu]
Sent: Tuesday, September 17, 2013 6:41 PM
To: KLAMA Eve Katrin
Subject: RE: Secondary Traumatic Stress Scale

Hi Eve,

Permission granted.

Best,
Brian

Brian E. Bride, Ph.D., MSW, MPH
Professor & Ph.D. Program Director
School of Social Work
The University of Georgia
425 Tucker Hall
Athens, Georgia 30602
(706) 542-5425

Editor-in-Chief, Traumatology
Fellow, Owens Institute for Behavioral Research

From: KLAMA Eve Katrin <[REDACTED]>
Sent: Saturday, September 14, 2013 6:45 AM
To: Brian Bride
Subject: Secondary Traumatic Stress Scale

Dear Mr Bride,

My name is Eve Klama, I am a Trainee Clinical Psychologist at the University of Staffordshire in the United Kingdom. I am currently preparing my doctoral thesis, aiming to look at looked after children care staff's experience of secondary trauma. I found your secondary traumatic stress scale online and was wondering whether you could give me permission to use it for research purposes?

Thank you ever so much.

Best wishes,

Eve Klama

d) Stressful life events scale questionnaire permission from author.

FW: SLESQ query

Subject: FW: SLESQ query

From: KLAMA Eve Katrin <[REDACTED]>

Date: 23/01/2014 22:30

To: [REDACTED]

From: Lisa Goodman [lisa.goodman@bc.edu]

Sent: Monday, August 05, 2013 7:46 PM

To: Bonnie Green; KLAMA Eve Katrin

Subject: RE: SLESQ query

Fine with me Eve. Thanks for checking Bonnie.
Best, Lisa

Lisa Goodman, Ph.D.
Professor and Director of Training
Department of Counseling and Developmental Psychology
Lynch School of Education
Boston College
Campion 310
Chestnut Hill, MA 02467

From: Bonnie Green [bgreen@lehighgeorgetown.edu]

Sent: Monday, August 05, 2013 1:57 PM

To: KLAMA Eve Katrin; Lisa Goodman

Subject: Re: SLESQ query

Eve, I think it would be fine, as long as you clarified that you were not using all of the questions. I am also running it past Dr. Goodman. BLG

On Sun, Jul 28, 2013 at 2:13 PM, KLAMA Eve Katrin <[REDACTED]> wrote:

Dear Ms Green,

My name is Eve Klama, I am Trainee Clinical Psychologist at Staffordshire University in the UK. I am currently designing my doctoral thesis and as part of this need to screen participants on experience of stressful life events. I came across the SLESQ and was wondering whether I could adapt this measure for my research? I would ask participants to answer all the questions primarily on a yes-no basis, and how many times they experienced stressful life events they answered yes to. Would I be able to do this?

Thank you very much for your help.

Best wishes,

Eve Klama

Bonnie L. Green, PhD
Professor and Vice Chair for Research

d) Experience in close relationships – revised questionnaire permission to use for non-commercial research.

Extract retrieved from (on May 31, 2014):

<http://internal.psychology.illinois.edu/~rcfraley/asures/ecrr.htm>

Q: Do I need permission to use these scales in my research?

A: No. The scales were published in a scientific journal for use in the public domain. You do not need to contact any of the authors for permission to use these scales in non-commercial research. You may *not* use the scales for commercial purposes without permission.

Appendix E



13th September 2013

Dear Eve,

We hereby agree for Eve Klama, Trainee Clinical Psychologist at Staffordshire and Keele University, to collect data from [redacted] support workers for her Doctoral thesis (proposed title: Secondary trauma and burnout in residential care staff for looked after children, the effect of attachment style and beliefs).

Best Wishes,

[redacted]

A handwritten signature in cursive script, appearing to read 'Lorna Stewart', is written over a small rectangular redacted area.

Dr Lorna Stewart
Consultant Clinical Psychologist
(Clinical Supervisor of Research)

[redacted]

[redacted]

ETHICAL APPROVAL FEEDBACK

Researcher name:	Eve Klama
Title of Study:	Secondary trauma and burnout in residential care staff for looked after children, the effect of attachment style, and beliefs.
Award Pathway:	DClinPsy
Status of approval:	Approved

Action now needed: Your project proposal has now been approved by the Faculty's Ethics Panel and you may now commence the implementation phase of your study. You do not need to approach the Local Research Ethics Committee. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

You should arrange to meet with your supervisor for support during the process of completing your study and writing your dissertation.

Comments for your consideration:

Thank you for forwarding the amendments requested by the Panel

Signed: Dr Lou Taylor
Deputy Chair of the Faculty of Health Sciences
Ethics Panel

Date: 17th February 2014

Appendix G



Dear _____,

My name is Eve Klama, and I previously worked for XXX Clinical Team until XXX. At present I am researching the impact that working in residential contexts has on care staff. This will form part of my Doctorate in Clinical Psychology. Burnout and secondary trauma in care staff is common although it has hardly been researched. I am hoping that this study will shed some light onto this topic with the aim of improving the support available to care staff who work in such emotionally charged environments.

XXX has kindly given me permission to contact you with the intention of approaching care staff to complete a set of questionnaires. I would be extremely grateful if I may attend one of your team meetings to explain the research, distribute the questionnaires, and give care staff an opportunity to ask questions and participate if they wish to. This should take no longer than 30 minutes.

I am aware that team meetings are an important opportunity for you and your team to communicate. I will therefore ring you in due course to arrange the most convenient time to attend, keeping intrusion to a minimum.

Please would you distribute the attached information sheets to all care staff within the home to inform them about the research and to make a decision on whether to participate prior to my attendance at a team meeting.

I really appreciate your help and encourage you to contact myself (XXX) or Lorna Stewart (Research Supervisor, XXX, XXX) if you have any questions or would like to discuss this further.

With kindest regards,

Eve Klama
Trainee Clinical Psychologist

Appendix H



Participant Information Sheet

‘Secondary trauma and burnout in residential care staff for looked after children, the effect of attachment style and beliefs’

You are being invited to take part in a research study. Before you decide whether you would like to be involved, we would like to explain why the research is being done and what it will entail. Please take the time to read the following information carefully. If you would like more information or encounter anything that is unclear, please do not hesitate to ask.

Who is organising this research?

Eve Klama (Trainee Clinical Psychologist from the University of Staffordshire) & Dr Lorna Stewart (Consultant Clinical Psychologist) & Dr Helen Scott (Senior Clinical Lecturer in Clinical Psychology at the University of Staffordshire)

What is the purpose of this study?

Due to the current lack of research into this area, we are interested in the different factors that predispose or protect residential care staff who work with looked after children to/from experiences of secondary trauma (the negative aspect of caring for traumatised individuals) and burnout (difficulties in dealing with work). With this information training programmes could be developed to help care staff identify effective coping strategies, and to train supervisors in understanding the different needs of everyone, and how best to support these.

What would I have to do?

We would like you to fill in a few questionnaires, taking approximately 25-30 minutes to complete. The questionnaire will seek information about your experiences of previous stressful life events, experience of secondary trauma and burnout as well as your attachment style (the way you relate to others close to you), your belief system, and some questions about yourself, including: your age, your gender and how long you have worked as a residential carer for looked after children.

Will this study harm or impact me in any way?

The nature of the topic we are interested in may mean that you feel slight discomfort answering some of the questions as they may remind you of uncomfortable or distressing experiences, especially if these happened recently. ***Please note that you do not have to participate if you feel uncomfortable to do so, and that you may stop from participating at any point.***

Will my information be kept confidential?

If you decide to take part, all your information and data will be kept confidential. Your questionnaire does not have your name on it (**please do not write your name anywhere**), and any information with your name on (consent form) will be kept in a locked filing cabinet away from your answers. Electronic data will be stored in a password protected file. This data will be stored for a period of 10 years following completion of the study. Other people who have access to this data will include: Dr Helen Scott and Dr Lorna Stewart. Please also note that you may withdraw your data within *three months* after handing your questionnaires in, by contacting one of the researchers and stating your participant number (as found on your debrief form).

What will happen to the results of the research study?

Once the research study is successfully completed, the overall results will be written up in a research report and submitted for publication in a scientific journal. The results may also be presented at scientific conferences. At no point will participants be identifiable in any write up.

If you wish we can arrange for you to obtain a copy of the findings.

Who do I contact for further information about the study?

If you have any questions in relation to this study, you may want to speak to the principle researcher, Eve Klama. If you want to speak to someone else, you can contact one of the supervisors of this research: Dr Lorna Stewart or Dr. Helen Scott.

Eve Klama

Email: XXX, Telephone: XXX

Dr Lorna Stewart

Email: XXX, Telephone: XXX

Dr Helen Scott

Email: XXX, Telephone: XXX

Thank you very much for considering participating in this research study!

Appendix I



Consent Form

Title of research project: Secondary trauma and burnout in residential care staff for looked after children, the effect of attachment style and beliefs.

Principle Researcher: Eve Klama (Trainee Clinical Psychologist)

Please tick if
in agreement:

Consent Statements:

1. I understand that my participation is voluntary and that I may withdraw from this research without giving any reason. I am aware that once my questionnaires have been handed in I can withdraw from the study within *three months* by contacting the researcher and stating my participant number. ☐
2. I have read the information sheet for this study, and am aware of what my participation will involve. All my questions have been satisfactorily answered. ☐
3. My individual data will be handled confidentially and only the researcher (Eve Klama) and supervisors (Dr. Lorna Stewart and Dr. Helen Scott) will have access to them for analysis purposes. ☐
4. The main researcher (Eve Klama) will keep the paper versions of my questionnaire in a lockable cupboard and the electronic data on a password secured hard drive for the duration of the research project (until September 2015), after which this information will be kept on file and a password secured hard drive at the University of Staffordshire for 10 years, in line with Staffordshire University research data guidelines, after which it will be destroyed. ☐
5. The overall findings will be submitted for publication in a scientific journal, and/or presented at scientific conferences. ☐

Name:

Signature:

Date:

Appendix J



Research Questionnaire

Please answer every question and note that pages are double sided!

Thank you very much for your time.

Please tell us a little bit about yourself first:

What is your age?

- | | | | |
|------------|--------------------------|----------------------|--------------------------|
| 21-30 | <input type="checkbox"/> | 30-40 | <input type="checkbox"/> |
| 40-50 | <input type="checkbox"/> | 50-60 | <input type="checkbox"/> |
| 60 or over | <input type="checkbox"/> | Would rather not say | <input type="checkbox"/> |

What is your gender?

- Male ☐ Female ☐ Would rather not say ☐

Please tell us (roughly) how long you have been working as a residential carer with looked after children:

_____ Days _____ Months _____ Years

MBI-Human Services Survey

Christina Maslach & Susan E. Jackson

*The purpose of this survey is to discover how various persons
in the human services, or helping professionals view their job
and the people with whom they work closely.*

Because persons in a wide variety of occupations will answer this survey, it uses the term *recipients* to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number "0" (zero) in the space before the statement. If you have had this feeling indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequent you feel that way. An example is shown below.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often
0-6

Statement:

1. _____ I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "How Often." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number "5."

MBI-Human Services Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
 2. _____ I feel used up at the end of the workday.
 3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
 4. _____ I can easily understand how my recipients feel about things.
 5. _____ I feel I treat some recipients as if they were impersonal objects.
 6. _____ Working with people all day is really a strain for me.
 7. _____ I deal very effectively with the problems of my recipients.
 8. _____ I feel burned out from my work.
 9. _____ I feel I'm positively influencing other people's lives through my work.
 10. _____ I've become more callous toward people since I took this job.
 11. _____ I worry that this job is hardening me emotionally.
 12. _____ I feel very energetic.
 13. _____ I feel frustrated by my job.
 14. _____ I feel I'm working too hard on my job.
 15. _____ I don't really care what happens to some recipients.
 16. _____ Working with people directly puts too much stress on me.
 17. _____ I can easily create a relaxed atmosphere with my recipients.
 18. _____ I feel exhilarated after working closely with my recipients.
 19. _____ I have accomplished many worthwhile things in this job.
 20. _____ I feel like I'm at the end of my rope.
 21. _____ In my work, I deal with emotional problems very calmly.
 22. _____ I feel recipients blame me for some of their problems.
-

Secondary Traumatic Stress Scale
(Bride, Robinson, Yegidis, & Figley, 2003)

The following is a list of statements made by persons who have been impacted by their work with traumatised individuals. Read each statement then indicate how frequently the statement was true for you in the past seven (7) days by circling the corresponding number next to the statement:
1= never, 2= rarely, 3= occasionally, 4= often, and 5= very often.

1.	I felt emotionally numb.	1	2	3	4	5
2.	My heart started pounding when I thought about my work with looked after young people.	1	2	3	4	5
3.	It seemed as if I was reliving the trauma(s) experienced by the looked after young person(s).	1	2	3	4	5
4.	I had trouble sleeping.	1	2	3	4	5
5.	I felt discouraged about the future.	1	2	3	4	5
6.	Reminders of my work with looked after young people upset me.	1	2	3	4	5
7.	I had little interest in being around others.	1	2	3	4	5
8.	I felt jumpy.	1	2	3	4	5
9.	I was less active than usual.	1	2	3	4	5
10.	I thought about my work with looked after young people when I didn't intend to.	1	2	3	4	5
11.	I had trouble concentrating.	1	2	3	4	5
12.	I avoided people, places, or things that reminded me of my work with looked after young people.	1	2	3	4	5
13.	I had disturbing dreams about my work with looked after young people.	1	2	3	4	5
14.	I wanted to avoid working with some looked after young people.	1	2	3	4	5
15.	I was easily annoyed.	1	2	3	4	5
16.	I expected something bad to happen.	1	2	3	4	5
17.	I noticed gaps in my memory about shifts with looked after young people.	1	2	3	4	5

The Experiences in Close Relationships-Revised (ECR-R) Questionnaire
Fraley, Waller, and Brennan (2000)

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by circling a number to indicate how much you agree or disagree with the statement.

		1=strongly disagree.....7=strongly agree						
1.	I'm afraid that I will lose my partner's love.	1	2	3	4	5	6	7
2.	I often worry that my partner will not want to stay with me.	1	2	3	4	5	6	7
3.	I often worry that my partner doesn't really love me.	1	2	3	4	5	6	7
4.	I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5	6	7
5.	I often wish that my partner's feelings for me were as strong as my feelings for him or her.	1	2	3	4	5	6	7
6.	I worry a lot about my relationships.	1	2	3	4	5	6	7
7.	When my partner is out of sight, I worry that he or she might become interested in someone else.	1	2	3	4	5	6	7
8.	When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.	1	2	3	4	5	6	7
9.	I rarely worry about my partner leaving me.	1	2	3	4	5	6	7
10.	My romantic partner makes me doubt myself.	1	2	3	4	5	6	7
11.	I do not often worry about being abandoned.	1	2	3	4	5	6	7
12.	I find that my partner(s) don't want to get as close as I would like.	1	2	3	4	5	6	7
13.	Sometimes romantic partners change their feelings about me for no apparent reason.	1	2	3	4	5	6	7
14.	My desire to be very close sometimes scares people away.	1	2	3	4	5	6	7
15.	I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.	1	2	3	4	5	6	7
16.	It makes me mad that I don't get the affection and support I need from my partner.	1	2	3	4	5	6	7
17.	I worry that I won't measure up to other people.	1	2	3	4	5	6	7
18.	My partner only seems to notice me when I'm angry.	1	2	3	4	5	6	7
19.	I prefer not to show a partner how I feel deep down.	1	2	3	4	5	6	7
20.	I feel comfortable sharing my private thoughts and feelings with my partner.	1	2	3	4	5	6	7
21.	I find it difficult to allow myself to depend on romantic partners.	1	2	3	4	5	6	7
22.	I am very comfortable being close to romantic partners.	1	2	3	4	5	6	7

23.	I don't feel comfortable opening up to romantic partners.	1	2	3	4	5	6	7
24.	I prefer not to be too close to romantic partners.	1	2	3	4	5	6	7
25.	I get uncomfortable when a romantic partner wants to be very close.	1	2	3	4	5	6	7
26.	I find it relatively easy to get close to my partner.	1	2	3	4	5	6	7
27.	It's not difficult for me to get close to my partner.	1	2	3	4	5	6	7
28.	I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7
29.	It helps to turn to my romantic partner in times of need.	1	2	3	4	5	6	7
30.	I tell my partner just about everything.	1	2	3	4	5	6	7
31.	I talk things over with my partner.	1	2	3	4	5	6	7
32.	I am nervous when partners get too close to me.	1	2	3	4	5	6	7
33.	I feel comfortable depending on romantic partners.	1	2	3	4	5	6	7
34.	I find it easy to depend on romantic partners.	1	2	3	4	5	6	7
35.	It's easy for me to be affectionate with my partner.	1	2	3	4	5	6	7
36.	My partner really understands me and my needs.	1	2	3	4	5	6	7

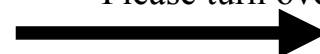
Belief Scale
Malouff & Schutte (1986)

Please use the scale below to express how much you agree with each of the following statements. Please circle your response

1= Strongly disagree, 2= Disagree somewhat, 3= Neither agree nor disagree, 4= Agree somewhat, 5= Strongly agree

1.	To be a worthwhile person I must be thoroughly competent in everything I do.	1	2	3	4	5
2.	My negative emotions are the result of external pressures.	1	2	3	4	5
3.	To be happy, I must maintain the approval of all the persons I consider significant.	1	2	3	4	5
4.	Most people who have been unfair to me are generally bad individuals.	1	2	3	4	5
5.	Some of my ways of acting are so ingrained that I could never change them.	1	2	3	4	5
6.	When it looks as if something might go wrong, it is reasonable to be quite concerned.	1	2	3	4	5
7.	Life should be easier than it is.	1	2	3	4	5
8.	It is awful when something I want to happen does not occur.	1	2	3	4	5
9.	It makes more sense to wait than to try to improve a bad life situation.	1	2	3	4	5
10.	I hate it when I cannot eliminate an uncertainty.	1	2	3	4	5
11.	Many events from my past so strongly influence me that it is impossible to change.	1	2	3	4	5
12.	Individuals who take unfair advantage of me should be punished.	1	2	3	4	5
13.	If there is a risk that something bad will happen, it makes sense to be upset.	1	2	3	4	5
14.	It is terrible when things do not go the way I would like.	1	2	3	4	5
15.	I must keep achieving in order to be satisfied with myself.	1	2	3	4	5
16.	Things should turn out better than they usually do.	1	2	3	4	5
17.	I cannot help how I feel when everything is going wrong.	1	2	3	4	5
18.	To be happy I must be loved by the persons who are important to me.	1	2	3	4	5
19.	It is better to ignore personal problems than to try to solve them.	1	2	3	4	5
20.	I dislike having any uncertainty about my future.	1	2	3	4	5

Please turn over



Adapted Stressful life events screening questionnaire-revised
Goodman, Corcoran, Turner, Yuan, and Green (1998)

The items listed below refer to events that may have taken place at any point in your entire life, including early childhood. Please indicate whether an event happened to you, and if so how many times.

1.	Have you ever had a life threatening illness?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
2.	Were you ever in a life-threatening accident?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
3.	Was physical force or a weapon ever used against you in a robbery or mugging?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
4.	Has an immediate family member, romantic partner, or very close friend died because of accident, homicide, or suicide?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
5.	At any time, has anyone (parent, other family member, romantic partner, stranger or someone else) ever <u>physically forced</u> you to have intercourse, or to have oral or anal sex against your wishes, or when you were helpless, such as being asleep or intoxicated?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
6.	Other than experiences mentioned in earlier questions, has anyone ever touched private parts of your body, made you touch their body, or tried to make you have sex against your wishes?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
7.	When you were a child, did a parent, caregiver or other person ever slap you repeatedly, beat you, or otherwise attack or harm you?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
8.	As an adult, have you ever been kicked, beaten, slapped around or otherwise physically harmed by a romantic partner, date, family member, stranger or someone else?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
9.	Has a parent, romantic partner, or family member repeatedly ridiculed you, put you down, ignored you, or told you you were no good?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
10.	Other than the experiences already covered, has anyone ever <u>threatened</u> you with a weapon like a knife or gun?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
11.	Have you ever been present when another person was killed? Seriously injured? Sexually or physically assaulted?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
12.	Have you ever been in any other situation where you were seriously injured or your life was in danger (e.g., involved in military combat or living in a war zone)?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No
13.	Have you ever been in any other situation that was extremely frightening or horrifying, or one in which you felt extremely helpless, that you haven't reported?	<input type="checkbox"/> Yes, ___times <input type="checkbox"/> No

End of Questionnaire!

Thank you very much for participating in this research!

Appendix K



Participant number:

Research Debrief Form

Thank you for taking part as a research participant in the present study concerning the influence of different factors on secondary trauma and burnout in residential care staff for looked after children. This study is of high importance in further understanding residential care staff's experience of burnout and/or secondary trauma. With this information we can start thinking about ways to best support care staff in their work with looked after children, through staff and supervisor training for example.

If you know of any colleagues who are likely to participate in this study, we would like to kindly ask you not to discuss it with them until they have had the opportunity to participate. Prior knowledge of questions asked during the study can invalidate the results. We greatly appreciate your cooperation.

If you wish to withdraw your data please contact one of the researchers and state your participant number (top right hand corner on this form) within three months of data collection.

If you have any questions regarding this study, please feel free to ask the researchers at this time or contact them later via email or telephone: Eve Klama: XXX, T: XXX, or Dr Lorna Stewart: XXX, T: XXX; M: XXX, or Dr Helen Scott: XXX T: XXX

In the event that you feel psychologically distressed by participation in this study, we encourage you to contact Dr Lorna Stewart. If you are feeling distressed and are unable to contact Dr Stewart, please contact the XXX counselling service available to XXX employees, under T: XXX, quoting reference: XXX or XXX

Organisations offering help lines for individuals who experience distress:

Samaritans	0845 90 90 90 (confidential and emotional support)
Talking2Minds	0791 712 6708 (trauma or negative experiences)
SupportLine	020 8554 9004 (confidential helpline, emotional support)

Appendix L

	Participant	Age	Gender	Time	MBI_q1	MBI_q2	MBI_q3	MBI_q4	MBI_q5	MBI_q6	MBI_q7	MBI_q8	MBI_q9	MBI_q10	MBI_q11	MBI_q12	MBI_q13	MBI_q14	MBI_q15
1	121.00	1.00	1.00	108.00	3.00	2.00	1.00	5.00	.00	.00	6.00	1.00	5.00	.00	.00	4.00	.00	.00	.00
2	71.00	3.00	.00	10.00	2.00	3.00	3.00	4.00	1.00	1.00	3.00	2.00	5.00	1.00	.00	3.00	4.00	3.00	1.00
3	95.00	3.00	.00	180.00	1.00	1.00	1.00	6.00	.00	3.00	3.00	1.00	5.00	1.00	6.00	5.00	3.00	3.00	1.00
4	96.00	2.00	.00	80.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00	4.00	5.00	5.00	5.00	3.00	3.00
5	110.00	3.00	1.00	120.00	1.00	1.00	.00	.	.00	.00	5.00	1.00	.	.00	.00	.	3.00	1.00	.00
6	111.00	3.00	1.00	48.00	1.00	3.00	1.00	6.00	.00	.00	6.00	1.00	6.00	.00	.00	4.00	2.00	2.00	.00
7	154.00	4.00	1.00	30.00	3.00	3.00	2.00	6.00	.00	1.00	5.00	2.00	6.00	1.00	.00	3.00	3.00	2.00	.00
8	155.00	2.00	1.00	9.00	2.00	4.00	3.00	6.00	.00	.00	1.00	2.00	6.00	.00	.00	3.00	2.00	4.00	.00
9	112.00	2.00	1.00	144.00	2.00	2.00	1.00	6.00	.00	.00	6.00	1.00	6.00	.00	2.00	5.00	2.00	6.00	.00
10	98.00	1.00	1.00	6.00	2.00	2.00	.00	6.00	.00	1.00	6.00	1.00	6.00	.00	.00	6.00	1.00	6.00	.00
11	113.00	4.00	1.00	24.00	5.00	5.00	5.00	4.00	.00	4.00	6.00	5.00	5.00	6.00	6.00	3.00	5.00	5.00	4.00
12	108.00	2.00	2.00	9.00	3.00	3.00	2.00	.	1.00	1.00	6.00	3.00	3.00	1.00	1.00	2.00	2.00	2.00	.00
13	57.00	3.00	1.00	60.00	3.00	2.00	2.00	3.00	.00	.00	5.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	.00
14	104.00	3.00	.00	84.00	1.00	3.00	6.00	3.00	3.00	3.00	6.00	1.00	3.00	3.00	.00	2.00	2.00	2.00	2.00
15	117.00	5.00	.00	102.00	4.00	5.00	5.00	1.00	2.00	1.00	4.00	4.00	.00	6.00	6.00	.00	5.00	5.00	3.00
16	115.00	1.00	.00	12.00	2.00	3.00	1.00	4.00	.00	.00	6.00	3.00	2.00	3.00	3.00	3.00	4.00	3.00	4.00
17	116.00	1.00	1.00	10.00	3.00	3.00	4.00	.	.00	1.00	6.00	3.00	6.00	3.00	4.00	3.00	3.00	3.00	.00
18	114.00	3.00	.00	113.00	6.00	6.00	6.00	5.00	.00	6.00	5.00	6.00	2.00	4.00	6.00	1.00	6.00	5.00	.00
19	100.00	1.00	1.00	3.00	2.00	1.00	1.00	5.00	.00	.00	4.00	.00	5.00	1.00	4.00	3.00	3.00	3.00	.00
20	109.00	1.00	1.00	57.00	4.00	4.00	4.00	5.00	3.00	3.00	4.00	4.00	.00	6.00	5.00	1.00	6.00	6.00	5.00
21	126.00	2.00	1.00	108.00	2.00	1.00	1.00	4.00	.00	.00	6.00	1.00	6.00	2.00	3.00	5.00	1.00	5.00	.00
22	125.00	3.00	1.00	180.00	3.00	3.00	3.00	3.00	.00	1.00	6.00	1.00	6.00	.00	1.00	2.00	6.00	2.00	.00
23	124.00	3.00	1.00	96.00	3.00	3.00	2.00	3.00	.00	.00	6.00	1.00	5.00	2.00	1.00	5.00	3.00	3.00	.00
24	127.00	2.00	1.00	68.00	4.00	5.00	4.00	5.00	.00	4.00	5.00	6.00	3.00	3.00	4.00	2.00	6.00	3.00	.00
25	123.00	2.00	.00	111.00	5.00	4.00	3.00	3.00	.00	.00	6.00	2.00	6.00	3.00	.00	4.00	4.00	2.00	1.00
26	145.00	1.00	.00	9.00	1.00	1.00	1.00	3.00	.00	.00	6.00	.00	5.00	2.00	3.00	6.00	1.00	.00	.00
27	150.00	1.00	1.00	83.00	3.00	4.00	4.00	4.00	.00	1.00	5.00	1.00	4.00	2.00	2.00	4.00	3.00	3.00	.00
28	147.00	1.00	1.00	26.00	4.00	5.00	4.00	2.00	.00	1.00	4.00	3.00	6.00	.00	1.00	2.00	3.00	.00	.00
29	149.00	4.00	.00	24.00	1.00	4.00	1.00	6.00	.00	3.00	6.00	1.00	3.00	.00	.00	6.00	3.00	1.00	.00
30	148.00	2.00	.00	100.00	3.00	5.00	2.00	6.00	.00	1.00	6.00	1.00	6.00	1.00	.00	2.00	2.00	2.00	.00
31	143.00	1.00	1.00	108.00	3.00	2.00	3.00	5.00	2.00	.00	6.00	3.00	3.00	2.00	3.00	6.00	3.00	2.00	3.00
32	144.00	1.00	1.00	12.00	3.00	3.00	4.00	5.00	1.00	2.00	5.00	3.00	3.00	2.00	3.00	2.00	5.00	4.00	2.00
33	146.00	2.00	1.00	36.00	.00	4.00	.00	6.00	.00	.00	6.00	4.00	3.00	.00	.00	5.00	2.00	3.00	.00

	Participant	Age	Gender	Time	MBI_q1	MBI_q2	MBI_q3	MBI_q4	MBI_q5	MBI_q6	MBI_q7	MBI_q8	MBI_q9	MBI_q10	MBI_q11	MBI_q12	MBI_q13	MBI_q14	MBI_q15
34	74.00	3.00	1.00	101.00	2.00	3.00	2.00	5.00	.00	3.00	4.00	1.00	5.00	4.00	4.00	2.00	2.00	2.00	.00
35	73.00	3.00	1.00	196.00	1.00	2.00	1.00	6.00	.00	.00	.	1.00	1.00	1.00	6.00	6.00	2.00	1.00	.00
36	72.00	3.00	.00	18.00	5.00	5.00	3.00	6.00	2.00	2.00	6.00	4.00	6.00	4.00	3.00	6.00	4.00	6.00	2.00
37	76.00	1.00	.00	15.00	.00	.00	.00	6.00	.00	.00	6.00	.00	6.00	.00	.00	6.00	4.00	.00	.00
38	120.00	1.00	1.00	6.00	3.00	3.00	1.00	6.00	6.00	.00	6.00	.00	6.00	6.00	.00	6.00	.00	6.00	.00
39	79.00	1.00	.00	48.00	3.00	3.00	.00	5.00	.00	.00	6.00	.00	5.00	6.00	.00	6.00	.00	.00	.00
40	85.00	3.00	.00	40.00	5.00	5.00	4.00	5.00	.00	3.00	5.00	3.00	4.00	.00	2.00	3.00	5.00	3.00	.00
41	84.00	1.00	1.00	41.00	1.00	.00	1.00	5.00	.00	.00	.00	.00	5.00	.00	1.00	5.00	2.00	3.00	.00
42	80.00	2.00	1.00	8.00	.00	.00	1.00	6.00	.00	1.00	6.00	.00	5.00	.00	1.00	4.00	1.00	1.00	.00
43	81.00	3.00	1.00	156.00	2.00	1.00	1.00	1.00	.00	.00	6.00	1.00	6.00	1.00	3.00	4.00	3.00	4.00	.00
44	83.00	4.00	.	156.00	1.00	.00	.00	6.00	.00	.00	6.00	1.00	6.00	.00	.00	6.00	1.00	.00	.00
45	82.00	2.00	.00	96.00	1.00	1.00	1.00	6.00	.00	.00	6.00	1.00	6.00	.00	.00	5.00	1.00	.00	.00
46	87.00	4.00	.00	180.00	4.00	3.00	3.00	2.00	.00	1.00	6.00	2.00	3.00	.00	.00	5.00	3.00	6.00	.00
47	90.00	2.00	1.00	68.00	2.00	4.00	4.00	2.00	1.00	3.00	5.00	3.00	1.00	1.00	2.00	5.00	6.00	2.00	1.00
48	89.00	2.00	.00	109.00	1.00	2.00	3.00	5.00	1.00	2.00	5.00	3.00	1.00	4.00	5.00	2.00	5.00	3.00	3.00
49	86.00	3.00	.00	8.00	1.00	1.00	.00	5.00	.00	.00	5.00	.00	6.00	.00	.00	6.00	.00	.00	.00
50	94.00	2.00	1.00	69.00	3.00	2.00	2.00	3.00	2.00	2.00	5.00	2.00	4.00	3.00	3.00	3.00	3.00	3.00	2.00
51	75.00	2.00	.00	98.00	4.00	6.00	4.00	6.00	1.00	4.00	5.00	3.00	5.00	3.00	2.00	1.00	1.00	2.00	1.00
52	17.00	2.00	.00	168.00	6.00	6.00	6.00	6.00	5.00	6.00	2.00	6.00	2.00	4.00	6.00	.00	6.00	6.00	6.00
53	131.00	1.00	1.00	56.00	2.00	3.00	1.00	5.00	2.00	.00	5.00	1.00	5.00	2.00	3.00	3.00	4.00	4.00	.00
54	15.00	4.00	.00	114.00	5.00	5.00	5.00	3.00	2.00	5.00	5.00	5.00	3.00	1.00	1.00	4.00	5.00	3.00	1.00
55	70.00	4.00	1.00	89.00	1.00	.00	1.00	6.00	.00	3.00	6.00	3.00	6.00	.	3.00	3.00	1.00	3.00	.00
56	129.00	4.00	.00	10.00	3.00	3.00	3.00	3.00	.00	2.00	6.00	3.00	5.00	1.00	4.00	1.00	4.00	5.00	.00
57	16.00	1.00	1.00	79.00	4.00	6.00	5.00	6.00	.00	2.00	6.00	5.00	3.00	2.00	5.00	3.00	6.00	4.00	.00
58	133.00	1.00	1.00	108.00	1.00	1.00	2.00	6.00	.00	.00	5.00	1.00	3.00	1.00	2.00	2.00	1.00	2.00	.00
59	160.00	3.00	1.00	84.00	1.00	.00	1.00	5.00	1.00	1.00	5.00	1.00	2.00	1.00	.00	3.00	3.00	2.00	.00
60	132.00	1.00	1.00	20.00	3.00	3.00	1.00	5.00	1.00	.00	5.00	1.00	5.00	5.00	3.00	3.00	3.00	2.00	.00
61	122.00	4.00	.00	96.00	2.00	2.00	1.00	5.00	.00	.00	6.00	.00	2.00	.00	.00	5.00	3.00	3.00	.00
62	153.00	3.00	.00	264.00	3.00	2.00	2.00	6.00	.00	1.00	6.00	1.00	1.00	1.00	2.00	5.00	3.00	6.00	1.00
63	71.00	4.00	1.00	98.00	1.00	2.00	.00	3.00	.00	2.00	4.00	.00	3.00	.00	1.00	6.00	6.00	.00	.00
64	18.00	2.00	.00	4.00	2.00	4.00	1.00	6.00	.00	.00	6.00	.00	6.00	.00	.00	5.00	1.00	1.00	.00
65	21.00	2.00	1.00	4.00	6.00	5.00	5.00	6.00	.00	1.00	5.00	4.00	4.00	.00	.00	2.00	4.00	1.00	.00
66	20.00	2.00	1.00	102.00	2.00	2.00	2.00	4.00	.00	1.00	6.00	2.00	4.00	.00	1.00	5.00	2.00	2.00	1.00
67	65.00	3.00	.00	180.00	5.00	5.00	5.00	5.00	.00	.00	6.00	.00	6.00	.00	.00	6.00	5.00	.00	.00
68	19.00	1.00	1.00	9.00	5.00	1.00	.00	6.00	.00	.00	6.00	2.00	.	.	6.00	3.00	.00	2.00	.00

	MBI_q16	MBI_q17	MBI_q18	MBI_q19	MBI_q20	MBI_q21	MBI_q22	MBI_EE	MBI_DP	MBI_PA	STSS_q1	STSS_q2	STSS_q3	STSS_q4	STSS_q5	STSS_q6	STSS_q7	STSS_q8	STSS_q9	STSS_q10
1	.00	5.00	5.00	5.00	1.00	6.00	.00	8.00	.00	41.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	3.00
2	1.00	4.00	4.00	4.00	1.00	3.00	1.00	20.00	4.00	30.00	3.00	4.00	2.00	2.00	2.00	2.00	2.00	3.00	1.00	3.00
3	1.00	3.00	3.00	5.00	1.00	5.00	1.00	15.00	9.00	35.00	2.00	2.00	1.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00
4	3.00	4.00	2.00	2.00	2.00	4.00	3.00	26.00	18.00	26.00	3.00	2.00	1.00	3.00	2.00	2.00	2.00	3.00	1.00	2.00
5	.00	5.00	.	5.00	.00	6.00	3.00	7.00	3.00	21.00	2.00	1.00	3.00	1.00	1.00	3.00	2.00	1.00	2.00	2.00
6	.00	6.00	6.00	5.00	.00	6.00	.00	10.00	.00	45.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00
7	1.00	3.00	3.00	3.00	3.00	6.00	3.00	20.00	4.00	35.00	3.00	2.00	2.00	3.00	1.00	3.00	1.00	2.00	2.00	3.00
8	.00	6.00	5.00	4.00	.00	4.00	.00	17.00	.00	35.00	1.00	1.00	4.00	.	3.00	3.00	1.00	2.00	3.00	4.00
9	.00	6.00	6.00	6.00	.00	6.00	1.00	14.00	3.00	47.00	1.00	1.00	1.00	3.00	2.00	2.00	1.00	1.00	2.00	5.00
10	.00	6.00	6.00	6.00	.00	5.00	6.00	13.00	6.00	47.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00
11	3.00	5.00	1.00	1.00	4.00	6.00	4.00	41.00	20.00	31.00	4.00	2.00	1.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00
12	2.00	3.00	2.00	.00	.00	2.00	1.00	18.00	4.00	18.00	3.00	2.00	1.00	5.00	3.00	3.00	1.00	3.00	5.00	4.00
13	.00	5.00	3.00	4.00	4.00	6.00	4.00	21.00	11.00	32.00	4.00	3.00	3.00	4.00	4.00	3.00	1.00	3.00	3.00	4.00
14	.00	6.00	3.00	3.00	1.00	6.00	3.00	19.00	11.00	32.00	2.00	1.00	2.00	4.00	2.00	1.00	2.00	1.00	1.00	2.00
15	2.00	2.00	.00	.00	5.00	4.00	1.00	36.00	18.00	11.00	3.00	3.00	2.00	3.00	3.00	1.00	2.00	1.00	4.00	4.00
16	2.00	4.00	2.00	1.00	1.00	4.00	2.00	19.00	12.00	26.00	2.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00
17	3.00	4.00	3.00	3.00	2.00	4.00	2.00	25.00	9.00	29.00	3.00	2.00	1.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00
18	5.00	5.00	1.00	5.00	5.00	5.00	6.00	51.00	16.00	29.00	3.00	3.00	4.00	5.00	3.00	2.00	5.00	2.00	3.00	3.00
19	.00	4.00	2.00	4.00	1.00	4.00	.00	11.00	5.00	31.00	3.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	3.00	2.00
20	4.00	2.00	.00	2.00	5.00	3.00	5.00	40.00	24.00	17.00	4.00	4.00	2.00	5.00	5.00	2.00	3.00	4.00	4.00	5.00
21	.00	5.00	2.00	5.00	1.00	5.00	6.00	12.00	11.00	38.00	2.00	1.00	2.00	2.00	3.00	2.00	1.00	1.00	3.00	4.00
22	1.00	6.00	4.00	6.00	2.00	6.00	1.00	22.00	2.00	39.00	3.00	1.00	1.00	3.00	3.00	1.00	3.00	1.00	2.00	2.00
23	.00	5.00	3.00	5.00	2.00	6.00	3.00	17.00	6.00	38.00	3.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	3.00	3.00
24	2.00	6.00	3.00	4.00	5.00	4.00	4.00	39.00	11.00	32.00	3.00	1.00	3.00	1.00	4.00	4.00	4.00	.	1.00	3.00
25	2.00	6.00	3.00	3.00	4.00	3.00	3.00	26.00	7.00	34.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	3.00	2.00
26	.00	6.00	3.00	5.00	.00	6.00	5.00	4.00	10.00	40.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	3.00
27	.00	5.00	4.00	4.00	1.00	5.00	2.00	20.00	6.00	35.00	2.00	2.00	1.00	3.00	3.00	2.00	2.00	1.00	2.00	3.00
28	1.00	6.00	2.00	2.00	2.00	3.00	2.00	23.00	3.00	27.00	2.00	1.00	2.00	3.00	1.00	1.00	1.00	1.00	3.00	3.00
29	4.00	6.00	3.00	4.00	1.00	6.00	.00	19.00	.00	40.00	1.00	2.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	3.00
30	.00	6.00	2.00	2.00	4.00	6.00	2.00	20.00	3.00	36.00	1.00	1.00	1.00	.	3.00	1.00	1.00	1.00	.	3.00
31	.00	6.00	3.00	4.00	2.00	5.00	2.00	18.00	12.00	38.00	1.00	1.00	1.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00
32	2.00	4.00	3.00	3.00	3.00	5.00	6.00	29.00	14.00	30.00	3.00	2.00	2.00	4.00	2.00	2.00	3.00	1.00	2.00	3.00
33	1.00	5.00	4.00	5.00	.00	5.00	4.00	14.00	4.00	39.00	1.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	3.00	4.00

	MBI_q16	MBI_q17	MBI_q18	MBI_q19	MBI_q20	MBI_q21	MBI_q22	MBI_EE	MBI_DP	MBI_PA	STSS_q1	STSS_q2	STSS_q3	STSS_q4	STSS_q5	STSS_q6	STSS_q7	STSS_q8	STSS_q9	STSS_q10
34	1.00	6.00	3.00	4.00	.00	6.00	1.00	16.00	9.00	35.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	5.00
35	1.00	.	2.00	3.00	1.00	.	.00	10.00	7.00	18.00	3.00	2.00	2.00	4.00	4.00	2.00	4.00	4.00	2.00	5.00
36	4.00	6.00	6.00	6.00	2.00	6.00	4.00	35.00	15.00	48.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00
37	.00	6.00	4.00	6.00	.00	5.00	.00	4.00	.00	45.00	1.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	3.00
38	.00	6.00	6.00	6.00	.00	6.00	.00	13.00	12.00	48.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00
39	.00	6.00	5.00	5.00	.00	6.00	.00	6.00	6.00	44.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	3.00
40	3.00	5.00	3.00	3.00	3.00	5.00	3.00	34.00	5.00	33.00	3.00	4.00	2.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00
41	.00	5.00	1.00	6.00	.00	5.00	4.00	7.00	5.00	32.00	2.00	1.00	1.00	3.00	2.00	1.00	1.00	1.00	1.00	4.00
42	.00	6.00	5.00	2.00	.00	5.00	6.00	4.00	7.00	39.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
43	.00	6.00	3.00	6.00	.00	6.00	2.00	12.00	6.00	38.00	2.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00
44	.00	6.00	6.00	6.00	1.00	6.00	1.00	4.00	1.00	48.00	2.00	.	1.00	1.00	1.00	1.00	1.00	2.00	1.00	3.00
45	1.00	6.00	4.00	6.00	.00	6.00	4.00	6.00	4.00	45.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00
46	4.00	3.00	4.00	2.00	6.00	6.00	4.00	32.00	4.00	31.00	4.00	5.00	3.00	3.00	5.00	3.00	3.00	4.00	3.00	3.00
47	1.00	2.00	1.00	2.00	1.00	5.00	6.00	26.00	11.00	23.00	4.00	3.00	2.00	4.00	4.00	2.00	2.00	3.00	3.00	4.00
48	2.00	3.00	1.00	1.00	1.00	6.00	1.00	22.00	14.00	24.00	4.00	2.00	1.00	.	2.00	3.00	2.00	1.00	3.00	2.00
49	.00	5.00	5.00	6.00	.00	5.00	.00	2.00	.00	43.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00
50	2.00	4.00	4.00	4.00	2.00	5.00	3.00	21.00	13.00	32.00	2.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
51	1.00	5.00	2.00	3.00	2.00	6.00	1.00	27.00	8.00	33.00	2.00	1.00	1.00	2.00	2.00	1.00	4.00	3.00	5.00	1.00
52	4.00	2.00	6.00	4.00	6.00	2.00	3.00	52.00	24.00	24.00	4.00	3.00	3.00	5.00	5.00	4.00	4.00	3.00	5.00	4.00
53	1.00	5.00	3.00	5.00	1.00	5.00	2.00	17.00	9.00	36.00	2.00	2.00	1.00	2.00	3.00	2.00	3.00	2.00	4.00	5.00
54	5.00	4.00	3.00	2.00	5.00	4.00	2.00	43.00	7.00	28.00	3.00	3.00	1.00	3.00	5.00	2.00	5.00	5.00	3.00	4.00
55	1.00	6.00	.	5.00	1.00	6.00	.00	14.00	3.00	38.00	3.00	1.00	2.00	5.00	3.00	2.00	1.00	3.00	3.00	3.00
56	2.00	3.00	3.00	5.00	3.00	6.00	5.00	28.00	10.00	32.00	4.00	3.00	3.00	.	2.00	3.00	2.00	2.00	3.00	4.00
57	3.00	4.00	5.00	3.00	4.00	6.00	3.00	39.00	10.00	36.00	5.00	4.00	3.00	3.00	5.00	4.00	4.00	3.00	4.00	3.00
58	.00	5.00	4.00	4.00	1.00	6.00	3.00	9.00	6.00	35.00	3.00	2.00	3.00	2.00	3.00	2.00	1.00	1.00	3.00	3.00
59	1.00	5.00	2.00	3.00	1.00	4.00	1.00	11.00	3.00	29.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
60	1.00	5.00	3.00	6.00	1.00	5.00	2.00	15.00	11.00	37.00	2.00	2.00	2.00	3.00	2.00	4.00	1.00	3.00	2.00	4.00
61	.00	6.00	2.00	3.00	.00	6.00	.00	11.00	.00	35.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00
62	1.00	5.00	1.00	1.00	.00	6.00	6.00	19.00	10.00	31.00	4.00	2.00	2.00	2.00	3.00	2.00	2.00	1.00	2.00	3.00
63	.00	3.00	1.00	2.00	.00	5.00	4.00	11.00	5.00	27.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	3.00
64	.00	5.00	6.00	6.00	.00	6.00	.00	9.00	.00	46.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00
65	1.00	4.00	1.00	3.00	1.00	4.00	1.00	28.00	1.00	29.00	1.00	3.00	1.00	4.00	1.00	1.00	1.00	1.00	2.00	3.00
66	1.00	4.00	5.00	5.00	1.00	5.00	1.00	15.00	3.00	38.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00
67	.00	6.00	5.00	6.00	.00	6.00	4.00	20.00	4.00	46.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
68	.00	6.00	.	6.00	.00	6.00	.00	10.00	6.00	33.00	1.00	1.00	.	1.00	1.00	3.00	1.00	1.00	1.00	1.00

	STSS_q11	STSS_q12	STSS_q13	STSS_q14	STSS_q15	STSS_q16	STSS_q17	STSS_I	STSS_Av	STSS_Ar	STSS_Total	ECR_q1	ECR_q2	ECR_q3	ECR_q4	ECR_q5	ECR_q6	ECR_q7	ECR_q8	ECR_q9	ECR_q10
1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	8.00	6.00	21.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2	3.00	3.00	2.00	4.00	2.00	3.00	1.00	13.00	16.00	13.00	42.00	1.00	1.00	2.00	2.00	1.00	3.00	2.00	1.00	3.00	2.00
3	2.00	2.00	1.00	4.00	3.00	3.00	2.00	8.00	17.00	12.00	37.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4	2.00	2.00	2.00	4.00	4.00	3.00	2.00	9.00	16.00	15.00	40.00	2.00	2.00	2.00	3.00	4.00	2.00	2.00	3.00	2.00	2.00
5	2.00	1.00	1.00	1.00	2.00	1.00	2.00	10.00	11.00	7.00	28.00	1.00	1.00	1.00	1.00	.	5.00	1.00	1.00	1.00	1.00
6	2.00	1.00	1.00	1.00	1.00	2.00	1.00	6.00	9.00	8.00	23.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
7	2.00	1.00	1.00	2.00	2.00	2.00	1.00	11.00	11.00	11.00	33.00	4.00	4.00	2.00	3.00	1.00	2.00	1.00	2.00	7.00	1.00
8	3.00	1.00	1.00	1.00	1.00	2.00	1.00	13.00	11.00	8.00	32.00	2.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	7.00	7.00
9	2.00	1.00	3.00	2.00	2.00	2.00	1.00	12.00	10.00	10.00	32.00	4.00	3.00	1.00	1.00	1.00	3.00	1.00	1.00	6.00	1.00
10	1.00	2.00	1.00	2.00	2.00	4.00	3.00	8.00	11.00	10.00	29.00	1.00	2.00	4.00	4.00	4.00	4.00	6.00	4.00	6.00	1.00
11	2.00	2.00	1.00	1.00	2.00	3.00	1.00	8.00	16.00	13.00	37.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	5.00
12	3.00	3.00	1.00	2.00	3.00	3.00	2.00	11.00	19.00	17.00	47.00	.	.	.	.	.	.	.	5.00	.	.
13	3.00	2.00	4.00	4.00	2.00	4.00	4.00	17.00	22.00	16.00	55.00	4.00	4.00	4.00	5.00	4.00	5.00	3.00	3.00	5.00	3.00
14	2.00	2.00	2.00	3.00	3.00	3.00	3.00	8.00	15.00	13.00	36.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00
15	2.00	1.00	1.00	2.00	3.00	2.00	2.00	11.00	17.00	11.00	39.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
16	2.00	2.00	1.00	3.00	2.00	3.00	1.00	7.00	11.00	10.00	28.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
17	2.00	1.00	1.00	1.00	1.00	1.00	2.00	6.00	10.00	9.00	25.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
18	3.00	4.00	2.00	5.00	3.00	4.00	1.00	14.00	24.00	17.00	55.00	6.00	6.00	6.00	6.00	6.00	7.00	1.00	7.00	6.00	6.00
19	2.00	1.00	1.00	3.00	3.00	3.00	3.00	10.00	15.00	10.00	35.00	2.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	7.00	1.00
20	5.00	5.00	5.00	5.00	4.00	4.00	5.00	18.00	31.00	22.00	71.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
21	2.00	1.00	1.00	5.00	1.00	3.00	1.00	10.00	16.00	9.00	35.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	3.00	3.00	1.00	2.00	2.00	3.00	2.00	6.00	18.00	12.00	36.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
23	2.00	1.00	1.00	3.00	2.00	2.00	1.00	7.00	15.00	8.00	30.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	3.00	1.00	2.00	5.00	4.00	4.00	3.00	13.00	21.00	12.00	46.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
25	2.00	1.00	1.00	2.00	2.00	3.00	1.00	6.00	13.00	10.00	29.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
26	3.00	2.00	1.00	1.00	1.00	2.00	4.00	7.00	13.00	8.00	28.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
27	2.00	3.00	2.00	2.00	2.00	1.00	1.00	10.00	15.00	9.00	34.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	6.00	3.00
28	1.00	1.00	1.00	1.00	1.00	1.00	1.00	8.00	10.00	7.00	25.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
29	1.00	1.00	1.00	1.00	2.00	2.00	1.00	10.00	7.00	7.00	24.00	6.00	4.00	2.00	2.00	7.00	4.00	2.00	2.00	6.00	2.00
30	.	4.00	1.00	1.00	2.00	3.00	1.00	7.00	11.00	6.00	24.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	7.00	2.00
31	1.00	1.00	1.00	1.00	2.00	3.00	1.00	5.00	7.00	12.00	24.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
32	3.00	4.00	1.00	3.00	2.00	1.00	2.00	10.00	19.00	11.00	40.00	.	.	.	.	.	.	.	.	.	.
33	2.00	1.00	1.00	1.00	1.00	3.00	1.00	8.00	10.00	10.00	28.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00

	STSS_q11	STSS_q12	STSS_q13	STSS_q14	STSS_q15	STSS_q16	STSS_q17	STSS_I	STSS_Av	STSS_Ar	STSS_Total	ECR_q1	ECR_q2	ECR_q3	ECR_q4	ECR_q5	ECR_q6	ECR_q7	ECR_q8	ECR_q9	ECR_q10
34	1.00	1.00	2.00	3.00	1.00	1.00	2.00	10.00	11.00	7.00	28.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
35	2.00	4.00	2.00	3.00	3.00	3.00	1.00	13.00	21.00	16.00	50.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	1.00	7.00
36	2.00	3.00	2.00	2.00	2.00	1.00	1.00	11.00	15.00	10.00	36.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	7.00	1.00
37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	8.00	7.00	7.00	22.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
38	1.00	1.00	1.00	1.00	1.00	2.00	1.00	8.00	7.00	6.00	21.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	2.00	7.00	1.00
39	1.00	1.00	1.00	1.00	1.00	2.00	1.00	9.00	7.00	7.00	23.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
40	3.00	3.00	2.00	3.00	3.00	3.00	3.00	14.00	21.00	16.00	51.00	4.00	4.00	1.00	2.00	2.00	3.00	4.00	3.00	5.00	2.00
41	2.00	1.00	1.00	1.00	1.00	1.00	1.00	8.00	9.00	8.00	25.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	1.00
42	3.00	1.00	1.00	1.00	2.00	1.00	1.00	5.00	9.00	8.00	22.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
43	1.00	2.00	1.00	2.00	2.00	2.00	2.00	7.00	11.00	8.00	26.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
44	2.00	1.00	1.00	3.00	1.00	3.00	3.00	6.00	12.00	9.00	27.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
45	2.00	2.00	1.00	3.00	2.00	1.00	1.00	8.00	10.00	7.00	25.00	1.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	4.00	2.00
46	3.00	2.00	1.00	5.00	3.00	5.00	2.00	15.00	24.00	18.00	57.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00
47	3.00	3.00	2.00	4.00	4.00	4.00	2.00	13.00	22.00	18.00	53.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00	7.00	1.00
48	3.00	2.00	1.00	4.00	4.00	2.00	2.00	9.00	19.00	10.00	38.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
49	1.00	1.00	1.00	1.00	2.00	2.00	1.00	8.00	7.00	7.00	22.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
50	2.00	1.00	1.00	1.00	3.00	2.00	2.00	6.00	11.00	10.00	27.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00	6.00
51	1.00	3.00	1.00	1.00	3.00	1.00	1.00	5.00	18.00	10.00	33.00	4.00	3.00	.	4.00	2.00	2.00	2.00	2.00	5.00	5.00
52	4.00	5.00	3.00	5.00	4.00	3.00	3.00	17.00	31.00	19.00	67.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	1.00	7.00
53	3.00	2.00	1.00	2.00	4.00	2.00	4.00	11.00	20.00	13.00	44.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	4.00	1.00
54	3.00	4.00	1.00	4.00	4.00	4.00	1.00	11.00	25.00	19.00	55.00	.	.	.	.	.	.	.	.	.	.
55	3.00	1.00	1.00	3.00	2.00	2.00	2.00	9.00	16.00	15.00	40.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
56	4.00	3.00	3.00	3.00	3.00	4.00	3.00	16.00	20.00	13.00	49.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
57	3.00	3.00	1.00	3.00	3.00	2.00	5.00	15.00	29.00	14.00	58.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
58	2.00	1.00	1.00	3.00	1.00	1.00	1.00	11.00	15.00	7.00	33.00	5.00	5.00	5.00	4.00	4.00	4.00	5.00	5.00	2.00	1.00
59	2.00	1.00	1.00	2.00	2.00	2.00	1.00	7.00	12.00	10.00	29.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
60	3.00	2.00	1.00	1.00	2.00	2.00	2.00	13.00	12.00	13.00	38.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	5.00
61	1.00	1.00	1.00	1.00	1.00	2.00	2.00	7.00	8.00	6.00	21.00	.	.	.	.	.	.	.	.	.	.
62	2.00	4.00	1.00	2.00	3.00	2.00	1.00	10.00	18.00	10.00	38.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
63	1.00	3.00	1.00	1.00	1.00	1.00	2.00	7.00	11.00	5.00	23.00	.	.	.	.	.	.	.	.	.	.
64	1.00	1.00	1.00	1.00	1.00	3.00	1.00	7.00	7.00	7.00	21.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
65	2.00	1.00	1.00	1.00	3.00	1.00	1.00	9.00	8.00	11.00	28.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
66	2.00	2.00	2.00	2.00	2.00	3.00	2.00	11.00	15.00	12.00	38.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	6.00	2.00
67	3.00	1.00	1.00	1.00	1.00	3.00	3.00	6.00	9.00	9.00	24.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00
68	1.00	1.00	1.00	1.00	1.00	1.00	2.00	6.00	8.00	5.00	19.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00

	ECR_q11	ECR_q12	ECR_q13	ECR_q14	ECR_q15	ECR_q16	ECR_q17	ECR_q18	ECR_q19	ECR_q20	ECR_q21	ECR_q22	ECR_q23	ECR_q24	ECR_q25	ECR_q26	ECR_q27	ECR_q28	ECR_q29	ECR_q30
1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2	5.00	6.00	1.00	2.00	5.00	4.00	6.00	7.00	2.00	2.00	6.00	4.00	2.00	2.00	2.00	1.00	2.00	1.00	2.00	3.00
3	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00
4	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	6.00	6.00	6.00	2.00	2.00	2.00	2.00	2.00	2.00	6.00	6.00	6.00
5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	7.00	7.00	7.00	7.00	7.00	1.00	1.00	7.00	1.00	1.00
6	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	2.00
7	6.00	1.00	1.00	2.00	1.00	3.00	2.00	6.00	2.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	5.00	2.00	3.00
8	7.00	1.00	4.00	2.00	2.00	5.00	3.00	5.00	4.00	5.00	4.00	6.00	3.00	2.00	2.00	6.00	6.00	6.00	7.00	6.00
9	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	5.00	5.00	3.00	5.00	3.00	3.00	3.00	6.00	3.00	3.00	5.00	5.00
10	5.00	4.00	1.00	1.00	4.00	4.00	4.00	3.00	2.00	4.00	6.00	4.00	2.00	5.00	1.00	5.00	4.00	2.00	2.00	1.00
11	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
12	4.00	.	.	5.00	4.00	.	4.00	.	.	.	.	.	.	.	.	.	.	.	.	.
13	6.00	3.00	3.00	4.00	4.00	3.00	3.00	2.00	4.00	4.00	4.00	5.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00
14	7.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	6.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00
15	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	3.00	1.00	1.00	1.00	2.00	2.00	2.00	5.00	4.00
16	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
17	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	2.00	5.00
18	7.00	2.00	6.00	4.00	7.00	5.00	5.00	7.00	5.00	7.00	4.00	5.00	7.00	1.00	1.00	7.00	5.00	6.00	4.00	7.00
19	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00
20	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	2.00	2.00	4.00
21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	7.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	7.00	1.00	1.00	1.00	7.00	1.00	7.00	7.00	7.00
25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	4.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
26	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	6.00	3.00	5.00
27	5.00	2.00	2.00	2.00	3.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00
28	7.00	1.00	5.00	5.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	7.00	1.00	1.00	1.00	7.00	7.00	7.00	7.00	7.00
29	6.00	2.00	2.00	4.00	2.00	2.00	2.00	6.00	4.00	5.00	4.00	2.00	5.00	2.00	4.00	4.00	2.00	5.00	5.00	6.00
30	7.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	6.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	3.00
31	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	7.00	7.00	7.00	7.00	7.00
32	.	.	.	1.00	2.00	.	1.00	.	.	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	.	.
33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00

	ECR_q11	ECR_q12	ECR_q13	ECR_q14	ECR_q15	ECR_q16	ECR_q17	ECR_q18	ECR_q19	ECR_q20	ECR_q21	ECR_q22	ECR_q23	ECR_q24	ECR_q25	ECR_q26	ECR_q27	ECR_q28	ECR_q29	ECR_q30
34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
35	7.00	3.00	7.00	1.00	1.00	1.00	7.00	6.00	7.00	3.00	7.00	6.00	3.00	7.00	7.00	5.00	3.00	3.00	3.00	5.00
36	4.00	2.00	1.00	6.00	1.00	1.00	1.00	1.00	1.00	7.00	5.00	7.00	5.00	1.00	1.00	3.00	2.00	2.00	2.00	1.00
37	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00
38	7.00	2.00	1.00	1.00	2.00	2.00	2.00	1.00	3.00	5.00	6.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
39	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
40	4.00	1.00	2.00	2.00	4.00	1.00	6.00	1.00	4.00	2.00	4.00	3.00	2.00	4.00	3.00	2.00	3.00	1.00	2.00	2.00
41	2.00	1.00	1.00	2.00	1.00	4.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	7.00	1.00	2.00	1.00
42	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	1.00	7.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
43	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
44	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
45	4.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	2.00
46	1.00	1.00	1.00	1.00	1.00	7.00	2.00	2.00	7.00	1.00	2.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	1.00
47	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	2.00	4.00	2.00	1.00	2.00	4.00	2.00	2.00	1.00	1.00	2.00
48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
49	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	7.00	3.00	6.00	1.00	1.00	1.00	7.00	1.00	7.00	7.00	7.00
50	2.00	6.00	5.00	3.00	2.00	4.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	5.00	5.00	3.00	4.00	4.00	3.00
51	4.00	1.00	3.00	3.00	1.00	3.00	4.00	1.00	6.00	4.00	4.00	4.00	5.00	2.00	4.00	2.00	2.00	5.00	5.00	6.00
52	3.00	5.00	7.00	5.00	7.00	7.00	5.00	7.00	7.00	5.00	5.00	4.00	6.00	7.00	5.00	3.00	3.00	3.00	4.00	5.00
53	7.00	2.00	2.00	2.00	4.00	5.00	4.00	1.00	3.00	4.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	1.00
54	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
55	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
56	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	3.00	1.00	1.00	1.00	2.00	.	.	.	.
57	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	3.00	1.00	2.00
58	7.00	1.00	1.00	1.00	7.00	4.00	7.00	1.00	7.00	7.00	7.00	4.00	4.00	6.00	4.00	4.00	4.00	7.00	7.00	7.00
59	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
60	7.00	1.00	2.00	2.00	3.00	5.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00	6.00	2.00	1.00	1.00	1.00	2.00
61	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
62	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	7.00	1.00	1.00	1.00	7.00	1.00	2.00	2.00	1.00
63	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
64	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	6.00	1.00	7.00	1.00	1.00	1.00	2.00	1.00	4.00	2.00	4.00
65	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00
66	6.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	6.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
67	7.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
68	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

	ECR_q31	ECR_q32	ECR_q33	ECR_q34	ECR_q35	ECR_q36	ECR_AnX	ECR_Avoid	BS_q1	BS_q2	BS_q3	BS_q4	BS_q5	BS_q6	BS_q7	BS_q8	BS_q9	BS_q10
1	1.00	1.00	1.00	1.00	1.00	2.00	18.00	19.00	4.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00
2	1.00	1.00	6.00	2.00	2.00	2.00	54.00	43.00	4.00	3.00	5.00	1.00	3.00	4.00	5.00	3.00	1.00	3.00
3	2.00	2.00	2.00	1.00	1.00	1.00	19.00	31.00	4.00	3.00	3.00	2.00	3.00	4.00	1.00	3.00	2.00	3.00
4	6.00	2.00	5.00	5.00	2.00	4.00	41.00	72.00	4.00	4.00	3.00	2.00	5.00	2.00	3.00	3.00	3.00	1.00
5	1.00	1.00	.	.	1.00	1.00	21.00	128.00	.	.	.	.	.	.	.	.	.	.
6	1.00	1.00	4.00	4.00	1.00	1.00	20.00	28.00	4.00	3.00	3.00	1.00	1.00	3.00	3.00	2.00	1.00	1.00
7	4.00	2.00	2.00	2.00	3.00	4.00	49.00	41.00	1.00	2.00	1.00	1.00	3.00	4.00	2.00	1.00	3.00	2.00
8	6.00	2.00	3.00	6.00	6.00	7.00	56.00	87.00	3.00	3.00	2.00	1.00	2.00	5.00	3.00	2.00	2.00	3.00
9	5.00	3.00	5.00	5.00	2.00	2.00	34.00	71.00	1.00	3.00	1.00	1.00	4.00	5.00	4.00	4.00	1.00	4.00
10	1.00	4.00	6.00	6.00	4.00	2.00	62.00	61.00	3.00	5.00	4.00	2.00	3.00	4.00	4.00	4.00	2.00	5.00
11	6.00	5.00	6.00	6.00	5.00	6.00	92.00	105.00	3.00	3.00	3.00	1.00	3.00	4.00	3.00	4.00	4.00	4.00
12	.	.	.	.	.	.	22.00	.	2.00	3.00	2.00	1.00	3.00	2.00	5.00	2.00	2.00	4.00
13	5.00	3.00	5.00	5.00	5.00	5.00	68.00	75.00	4.00	3.00	3.00	2.00	3.00	4.00	5.00	3.00	4.00	3.00
14	1.00	2.00	1.00	1.00	1.00	2.00	32.00	30.00	3.00	3.00	2.00	3.00	1.00	1.00	3.00	5.00	3.00	4.00
15	4.00	1.00	2.00	4.00	2.00	2.00	30.00	45.00	2.00	4.00	1.00	1.00	1.00	3.00	5.00	2.00	1.00	1.00
16	1.00	1.00	1.00	1.00	1.00	1.00	30.00	24.00	5.00	5.00	5.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00
17	5.00	1.00	1.00	1.00	1.00	1.00	24.00	33.00	5.00	5.00	4.00	4.00	4.00	5.00	4.00	5.00	2.00	5.00
18	4.00	1.00	4.00	4.00	3.00	7.00	100.00	82.00	3.00	4.00	2.00	5.00	2.00	4.00	5.00	4.00	1.00	5.00
19	4.00	1.00	2.00	4.00	2.00	2.00	36.00	42.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	2.00	3.00
20	2.00	1.00	2.00	2.00	2.00	2.00	21.00	34.00	4.00	5.00	1.00	2.00	3.00	4.00	4.00	2.00	1.00	5.00
21	1.00	1.00	1.00	1.00	1.00	1.00	18.00	18.00	4.00	1.00	3.00	3.00	1.00	4.00	3.00	3.00	1.00	4.00
22	1.00	1.00	1.00	1.00	1.00	1.00	18.00	33.00	1.00	5.00	2.00	3.00	3.00	1.00	4.00	2.00	1.00	4.00
23	1.00	1.00	2.00	1.00	1.00	2.00	18.00	28.00	2.00	4.00	4.00	3.00	3.00	4.00	3.00	2.00	1.00	3.00
24	7.00	1.00	7.00	7.00	7.00	7.00	24.00	84.00	2.00	4.00	3.00	1.00	3.00	4.00	3.00	2.00	2.00	2.00
25	1.00	1.00	1.00	4.00	1.00	3.00	18.00	33.00	4.00	1.00	2.00	3.00	3.00	4.00	3.00	2.00	1.00	2.00
26	5.00	1.00	2.00	2.00	1.00	2.00	18.00	43.00	4.00	1.00	4.00	4.00	1.00	4.00	1.00	2.00	2.00	1.00
27	2.00	2.00	4.00	4.00	2.00	3.00	49.00	42.00	2.00	3.00	3.00	2.00	4.00	3.00	4.00	3.00	1.00	3.00
28	7.00	1.00	7.00	7.00	7.00	7.00	38.00	90.00	3.00	4.00	3.00	2.00	3.00	3.00	2.00	1.00	1.00	2.00
29	6.00	3.00	4.00	2.00	1.00	7.00	63.00	71.00	1.00	2.00	1.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00
30	2.00	1.00	1.00	1.00	1.00	4.00	34.00	35.00	1.00	2.00	1.00	4.00	4.00	5.00	3.00	3.00	4.00	3.00
31	7.00	1.00	1.00	1.00	7.00	7.00	18.00	72.00	2.00	4.00	2.00	3.00	2.00	4.00	4.00	3.00	1.00	1.00
32	.	.	7.00	7.00	6.00	.	4.00	75.00	4.00	4.00	3.00	1.00	1.00	3.00	3.00	4.00	2.00	4.00
33	1.00	1.00	1.00	3.00	1.00	1.00	24.00	25.00	4.00	2.00	3.00	2.00	1.00	4.00	3.00	3.00	2.00	3.00

	ECR_q31	ECR_q32	ECR_q33	ECR_q34	ECR_q35	ECR_q36	ECR_Anx	ECR_Avoid	BS_q1	BS_q2	BS_q3	BS_q4	BS_q5	BS_q6	BS_q7	BS_q8	BS_q9	BS_q10
34	1.00	1.00	1.00	1.00	1.00	1.00	18.00	18.00	3.00	4.00	1.00	3.00	4.00	4.00	3.00	3.00	4.00	3.00
35	3.00	6.00	6.00	6.00	6.00	4.00	97.00	90.00	3.00	4.00	2.00	2.00	2.00	4.00	5.00	4.00	3.00	3.00
36	1.00	1.00	1.00	1.00	1.00	1.00	35.00	43.00	4.00	1.00	2.00	2.00	.	3.00	5.00	3.00	1.00	2.00
37	1.00	1.00	4.00	4.00	1.00	1.00	32.00	30.00	5.00	4.00	5.00	3.00	3.00	5.00	3.00	3.00	2.00	4.00
38	1.00	1.00	1.00	7.00	1.00	7.00	38.00	41.00	5.00	1.00	1.00	3.00	1.00	3.00	4.00	5.00	5.00	3.00
39	1.00	1.00	1.00	1.00	1.00	1.00	18.00	18.00	4.00	3.00	3.00	3.00	2.00	4.00	2.00	3.00	2.00	2.00
40	1.00	3.00	3.00	3.00	3.00	2.00	51.00	47.00	5.00	4.00	5.00	3.00	4.00	5.00	3.00	3.00	2.00	4.00
41	1.00	4.00	4.00	3.00	3.00	3.00	32.00	38.00	4.00	3.00	2.00	1.00	2.00	5.00	3.00	3.00	2.00	3.00
42	1.00	1.00	1.00	1.00	1.00	1.00	30.00	35.00	3.00	3.00	2.00	3.00	5.00	3.00	3.00	4.00	2.00	4.00
43	1.00	1.00	1.00	1.00	1.00	1.00	18.00	18.00	1.00	2.00	1.00	2.00	3.00	3.00	4.00	1.00	4.00	4.00
44	1.00	1.00	1.00	1.00	1.00	1.00	24.00	18.00	1.00	4.00	1.00	3.00	.	4.00	4.00	3.00	1.00	4.00
45	2.00	1.00	2.00	2.00	2.00	2.00	46.00	35.00	4.00	3.00	4.00	3.00	4.00	4.00	3.00	3.00	1.00	4.00
46	5.00	1.00	7.00	7.00	7.00	6.00	28.00	98.00	1.00	5.00	3.00	4.00	2.00	3.00	2.00	3.00	3.00	4.00
47	2.00	1.00	2.00	2.00	6.00	2.00	32.00	41.00	4.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	1.00	4.00
48	1.00	1.00	1.00	1.00	1.00	1.00	18.00	18.00	3.00	2.00	3.00	3.00	2.00	4.00	4.00	4.00	2.00	2.00
49	7.00	1.00	1.00	1.00	1.00	1.00	20.00	61.00	1.00	5.00	1.00	1.00	1.00	4.00	2.00	1.00	1.00	1.00
50	2.00	4.00	4.00	4.00	4.00	3.00	57.00	59.00	4.00	3.00	3.00	2.00	3.00	4.00	3.00	3.00	3.00	4.00
51	5.00	2.00	6.00	3.00	4.00	6.00	49.00	75.00	2.00	4.00	4.00	5.00	4.00	4.00	4.00	3.00	2.00	4.00
52	5.00	3.00	5.00	5.00	4.00	5.00	110.00	84.00	5.00	4.00	3.00	3.00	3.00	3.00	5.00	4.00	4.00	4.00
53	2.00	2.00	2.00	2.00	2.00	2.00	50.00	36.00	3.00	4.00	3.00	2.00	4.00	4.00	4.00	2.00	2.00	4.00
54	.	.	.	.	.	.	.	.	1.00	3.00	4.00	3.00	4.00	4.00	5.00	3.00	3.00	3.00
55	1.00	1.00	1.00	1.00	1.00	1.00	24.00	18.00	3.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	1.00	2.00
56	.	.	.	.	.	.	24.00	13.00	1.00	2.00	2.00	2.00	1.00	4.00	4.00	2.00	2.00	4.00
57	2.00	2.00	1.00	2.00	2.00	1.00	30.00	30.00	5.00	5.00	4.00	3.00	2.00	2.00	4.00	2.00	1.00	4.00
58	4.00	7.00	4.00	3.00	4.00	4.00	69.00	94.00	5.00	3.00	5.00	3.00	3.00	5.00	5.00	3.00	3.00	4.00
59	1.00	1.00	1.00	1.00	1.00	1.00	30.00	18.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00
60	2.00	3.00	5.00	5.00	2.00	3.00	45.00	50.00	4.00	4.00	4.00	3.00	3.00	3.00	2.00	2.00	4.00	3.00
61	.	.	.	.	.	.	.	.	5.00	5.00	4.00	3.00	3.00	5.00	4.00	3.00	1.00	4.00
62	1.00	1.00	1.00	1.00	1.00	2.00	19.00	34.00	1.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
63	.	.	.	.	.	.	.	.	5.00	1.00	1.00	2.00	3.00	3.00	5.00	2.00	3.00	3.00
64	4.00	1.00	3.00	3.00	1.00	2.00	30.00	46.00	4.00	3.00	2.00	3.00	1.00	5.00	3.00	4.00	3.00	4.00
65	2.00	1.00	2.00	3.00	2.00	2.00	18.00	36.00	3.00	4.00	.	1.00	2.00	2.00	3.00	2.00	1.00	3.00
66	2.00	2.00	2.00	2.00	2.00	2.00	47.00	49.00	4.00	4.00	4.00	4.00	2.00	4.00	3.00	3.00	2.00	3.00
67	1.00	1.00	1.00	1.00	1.00	1.00	32.00	23.00	3.00	3.00	3.00	5.00	3.00	4.00	4.00	4.00	3.00	3.00
68	1.00	1.00	1.00	1.00	1.00	1.00	30.00	24.00	5.00	3.00	5.00	1.00	3.00	5.00	2.00	3.00	1.00	3.00

	BS_q11	BS_q12	BS_q13	BS_q14	BS_q15	BS_q16	BS_q17	BS_q18	BS_q19	BS_q20	BS_Total	SLE_q1	SLE_q2	SLE_q3	SLE_q4	SLE_q5	SLE_q6	SLE_q7	SLE_q8	SLE_q9	SLE_q10
1	3.00	1.00	4.00	2.00	3.00	3.00	3.00	2.00	1.00	3.00	52.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	4.00	2.00	5.00	3.00	3.00	4.00	2.00	5.00	1.00	5.00	66.00	.00	.00	.00	.00	.00	.00	3.00	1.00	3.00	.00
3	3.00	2.00	3.00	3.00	2.00	2.00	2.00	5.00	1.00	3.00	54.00	.00	1.00	.00	1.00	.00	.00	.00	1.00	.00	.00
4	4.00	2.00	2.00	2.00	4.00	2.00	3.00	3.00	4.00	1.00	57.00	.00	1.00	.00	.00	.00	.00	.00	.00	4.00	.00
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	1.00	2.00	3.00	1.00	4.00	2.00	1.00	4.00	1.00	1.00	42.00	.00	.00	1.00	.00	1.00	1.00	.00	1.00	.00	1.00
7	4.00	1.00	2.00	1.00	1.00	2.00	4.00	1.00	1.00	2.00	39.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	1.00	4.00	2.00	4.00	4.00	3.00	2.00	4.00	2.00	3.00	55.00	.00	.00	.00	1.00	.00	.00	3.00	1.00	1.00	1.00
9	3.00	4.00	2.00	2.00	2.00	4.00	4.00	4.00	1.00	3.00	57.00	.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00
10	4.00	2.00	3.00	3.00	4.00	3.00	4.00	4.00	3.00	5.00	71.00	.00	1.00	.00	1.00	.00	.00	.00	.00	4.00	.00
11	2.00	1.00	3.00	3.00	4.00	3.00	4.00	4.00	2.00	4.00	62.00	.00	1.00	.00	.00	.00	.00	.00	.00	4.00	.00
12	4.00	3.00	4.00	3.00	4.00	4.00	4.00	4.00	3.00	4.00	63.00	.00	.00	.00	.00	.00	.00	1.00	.00	.00	.00
13	3.00	2.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00	4.00	66.00	.00	.00	.00	.00	.00	.00	.00	3.00	.00	.00
14	4.00	3.00	4.00	4.00	2.00	3.00	4.00	4.00	3.00	3.00	62.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00
15	1.00	5.00	3.00	1.00	2.00	3.00	3.00	1.00	5.00	3.00	48.00	1.00	1.00	.00	1.00	.00	.00	4.00	4.00	.00	1.00
16	1.00	3.00	1.00	4.00	5.00	2.00	1.00	4.00	1.00	4.00	49.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
17	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	2.00	5.00	85.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00
18	1.00	5.00	1.00	4.00	4.00	4.00	5.00	5.00	1.00	5.00	70.00	1.00	.00	.00	2.00	1.00	.00	1.00	.00	.00	1.00
19	2.00	2.00	4.00	4.00	4.00	4.00	5.00	5.00	3.00	5.00	70.00	.00	1.00	.00	.00	1.00	1.00	.00	.00	.00	.00
20	2.00	1.00	4.00	3.00	4.00	4.00	5.00	3.00	5.00	5.00	67.00	.00	.00	.00	.00	.00	.00	.00	4.00	.00	.00
21	1.00	3.00	2.00	1.00	2.00	3.00	3.00	2.00	1.00	3.00	48.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00
22	3.00	3.00	2.00	3.00	1.00	3.00	4.00	5.00	1.00	5.00	56.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00
23	3.00	4.00	3.00	3.00	3.00	3.00	4.00	5.00	1.00	5.00	63.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.00
24	3.00	3.00	3.00	3.00	4.00	2.00	4.00	1.00	5.00	4.00	58.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	3.00	4.00	1.00	2.00	2.00	3.00	3.00	4.00	1.00	5.00	53.00	.00	.00	2.00	1.00	.00	.00	.00	.00	.00	.00
26	4.00	4.00	1.00	1.00	2.00	2.00	2.00	4.00	3.00	2.00	49.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.00
27	2.00	2.00	3.00	3.00	3.00	3.00	4.00	2.00	1.00	3.00	54.00	1.00	.00	.00	.00	.00	.00	.00	1.00	1.00	.00
28	2.00	1.00	3.00	3.00	4.00	2.00	2.00	5.00	1.00	3.00	50.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	3.00	2.00	4.00	2.00	2.00	3.00	3.00	4.00	2.00	2.00	50.00	1.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
30	5.00	5.00	3.00	3.00	5.00	3.00	5.00	3.00	3.00	2.00	67.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	4.00	5.00	3.00	2.00	5.00	4.00	5.00	3.00	3.00	3.00	63.00	.00	1.00	.00	1.00	.00	.00	1.00	1.00	1.00	1.00
32	1.00	4.00	4.00	3.00	4.00	3.00	4.00	4.00	2.00	3.00	61.00	.00	.00	.00	.00	.00	1.00	1.00	.00	.00	.00
33	4.00	4.00	4.00	2.00	4.00	3.00	3.00	4.00	2.00	2.00	59.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	1.00

	BS_q11	BS_q12	BS_q13	BS_q14	BS_q15	BS_q16	BS_q17	BS_q18	BS_q19	BS_q20	BS_Total	SLE_q1	SLE_q2	SLE_q3	SLE_q4	SLE_q5	SLE_q6	SLE_q7	SLE_q8	SLE_q9	SLE_q10
34	4.00	2.00	4.00	2.00	4.00	3.00	2.00	3.00	1.00	2.00	59.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
35	2.00	1.00	3.00	1.00	4.00	4.00	4.00	2.00	4.00	4.00	61.00	.00	.00	.00	1.00	.	.	.00	1.00	1.00	1.00
36	4.00	1.00	2.00	2.00	4.00	3.00	2.00	5.00	1.00	3.00	50.00	1.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
37	1.00	1.00	1.00	2.00	5.00	3.00	4.00	5.00	1.00	3.00	63.00	.00	.00	.00	.00	.00	.00	.00	1.00	1.00	.00
38	3.00	2.00	2.00	3.00	4.00	4.00	4.00	3.00	2.00	3.00	61.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
39	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	55.00	.00	.00	.00	1.00	.00	.00	.00	1.00	.00	1.00
40	4.00	3.00	3.00	3.00	3.00	3.00	4.00	5.00	2.00	4.00	72.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
41	3.00	2.00	4.00	3.00	5.00	3.00	3.00	5.00	1.00	3.00	60.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
42	2.00	2.00	2.00	3.00	4.00	3.00	4.00	4.00	1.00	4.00	61.00	.00	.00	.00	.00	1.00	.00	1.00	.00	.00	.00
43	1.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00	2.00	40.00	1.00	1.00	.00	.00	.00	.00	.00	.00	1.00	1.00
44	4.00	3.00	3.00	3.00	4.00	3.00	4.00	2.00	1.00	4.00	56.00	4.00	.00	.00	1.00	.00	.00	1.00	.00	1.00	.00
45	4.00	2.00	2.00	4.00	4.00	3.00	3.00	5.00	1.00	4.00	65.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
46	2.00	3.00	2.00	3.00	1.00	2.00	5.00	3.00	1.00	2.00	54.00	1.00	.00	.00	1.00	.00	.00	.00	.00	.00	1.00
47	4.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	2.00	4.00	71.00	1.00	1.00	.00	.00	.00	.00	1.00	1.00	1.00	1.00
48	1.00	2.00	3.00	2.00	3.00	2.00	2.00	4.00	3.00	3.00	54.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00
49	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	28.00	.00	.00	.00	.00	.00	.00	.00	.00	4.00	1.00
50	4.00	3.00	4.00	3.00	4.00	3.00	4.00	5.00	4.00	3.00	69.00	.00	.00	.00	.00	1.00	.00	.00	.00	2.00	.00
51	4.00	2.00	4.00	3.00	2.00	3.00	5.00	5.00	2.00	5.00	71.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52	3.00	5.00	3.00	3.00	4.00	3.00	3.00	4.00	2.00	5.00	73.00	.00	.00	.00	.00	.00	.00	1.00	.00	.00	.00
53	2.00	2.00	2.00	1.00	4.00	3.00	2.00	3.00	2.00	4.00	57.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
54	4.00	2.00	4.00	2.00	1.00	4.00	4.00	3.00	3.00	4.00	64.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
55	2.00	1.00	2.00	1.00	3.00	3.00	3.00	2.00	1.00	3.00	38.00	.00	.00	1.00	.00	.00	.00	.00	.00	1.00	1.00
56	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	4.00	61.00	.00	1.00	.00	1.00	.00	.00	1.00	.00	.00	1.00
57	2.00	3.00	2.00	2.00	4.00	4.00	4.00	4.00	2.00	5.00	64.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
58	4.00	1.00	1.00	3.00	5.00	5.00	5.00	5.00	3.00	5.00	76.00	.00	.00	.00	.00	1.00	1.00	.00	1.00	1.00	.00
59	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	58.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
60	3.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	1.00	3.00	63.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
61	3.00	3.00	4.00	2.00	3.00	3.00	3.00	5.00	3.00	5.00	71.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
62	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	60.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
63	1.00	1.00	1.00	2.00	5.00	4.00	4.00	1.00	1.00	3.00	51.00	.00	.00	.00	.00	1.00	1.00	.00	1.00	1.00	.00
64	1.00	4.00	3.00	4.00	4.00	3.00	3.00	2.00	1.00	4.00	61.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
65	1.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	1.00	3.00	43.00	.00	.00	.00	.00	.00	.00	.00	1.00	1.00	.00
66	3.00	3.00	4.00	3.00	4.00	3.00	4.00	4.00	3.00	3.00	67.00	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
67	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	63.00	.00	2.00	.00	.00	1.00	.00	.00	.00	.00	1.00
68	3.00	3.00	3.00	3.00	4.00	3.00	4.00	5.00	1.00	3.00	63.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

	SLE_q11	SLE_q12	SLE_q13	SLE_total	twentythirty	thirtyfourty	fourtyonwards
1	.00	.00	.00	.00	1.00	.00	.00
2	.00	.00	.00	7.00	.00	.00	1.00
3	1.00	.00	.00	4.00	.00	.00	1.00
4	1.00	.00	.00	6.00	.00	1.00	.00
5	.	.	.	.	.00	.00	1.00
6	1.00	.00	.00	6.00	.00	.00	1.00
7	.00	.00	.00	.00	.00	.00	1.00
8	.00	.00	.00	7.00	.00	1.00	.00
9	.00	.00	1.00	2.00	.00	1.00	.00
10	2.00	.00	2.00	10.00	1.00	.00	.00
11	.00	.00	.00	5.00	.00	.00	1.00
12	.00	.00	.00	1.00	.00	1.00	.00
13	.00	.00	.00	3.00	.00	.00	1.00
14	1.00	.00	1.00	3.00	.00	.00	1.00
15	1.00	.00	.00	13.00	.00	.00	1.00
16	.00	.00	.00	1.00	1.00	.00	.00
17	1.00	.00	1.00	3.00	1.00	.00	.00
18	1.00	.00	.00	7.00	.00	.00	1.00
19	.00	.00	.00	3.00	1.00	.00	.00
20	.00	.00	.00	4.00	1.00	.00	.00
21	.00	.00	.00	1.00	.00	1.00	.00
22	.00	.00	.00	1.00	.00	.00	1.00
23	.00	.00	.00	1.00	.00	.00	1.00
24	.00	.00	.00	.00	.00	1.00	.00
25	.00	.00	.00	3.00	.00	1.00	.00
26	2.00	.00	.00	4.00	1.00	.00	.00
27	.00	.00	1.00	4.00	1.00	.00	.00
28	1.00	.00	.00	2.00	1.00	.00	.00
29	.00	.00	.00	2.00	.00	.00	1.00
30	1.00	.00	.00	2.00	.00	1.00	.00
31	.00	.00	.00	6.00	1.00	.00	.00
32	.00	.00	.00	2.00	1.00	.00	.00
33	.00	.00	.00	2.00	.00	1.00	.00

	SLE_q11	SLE_q12	SLE_q13	SLE_total	twentythirty	thirtyfourty	fourtyonwards
34	.00	.00	.00	.00	.00	.00	1.00
35	.00	.00	.00	4.00	.00	.00	1.00
36	.00	.00	.00	2.00	.00	.00	1.00
37	.00	.00	.00	2.00	1.00	.00	.00
38	.00	.00	.00	.00	1.00	.00	.00
39	1.00	.00	.00	4.00	1.00	.00	.00
40	.00	.00	.00	.00	.00	.00	1.00
41	.00	.00	.00	1.00	1.00	.00	.00
42	.00	.00	1.00	3.00	.00	1.00	.00
43	.00	.00	.00	4.00	.00	.00	1.00
44	.00	.00	1.00	8.00	.00	.00	1.00
45	1.00	.00	.00	1.00	.00	1.00	.00
46	1.00	.00	1.00	5.00	.00	.00	1.00
47	.00	.00	.00	6.00	.00	1.00	.00
48	.00	.00	.00	1.00	.00	1.00	.00
49	2.00	.00	1.00	8.00	.00	.00	1.00
50	.00	.00	.00	3.00	.00	1.00	.00
51	.00	.00	.00	.00	.00	1.00	.00
52	1.00	.00	1.00	3.00	.00	1.00	.00
53	.00	.00	1.00	1.00	1.00	.00	.00
54	.00	.00	.00	.00	.00	.00	1.00
55	.00	1.00	1.00	5.00	.00	.00	1.00
56	.00	.00	1.00	5.00	.00	.00	1.00
57	.00	.00	.00	1.00	1.00	.00	.00
58	.00	.00	1.00	5.00	1.00	.00	.00
59	.00	.00	.00	1.00	.00	.00	1.00
60	.00	.00	.00	1.00	1.00	.00	.00
61	.00	.00	.00	.00	.00	.00	1.00
62	.00	.00	.00	.00	.00	.00	1.00
63	.00	.00	.00	4.00	.00	.00	1.00
64	.00	.00	.00	1.00	.00	1.00	.00
65	.00	.00	.00	2.00	.00	1.00	.00
66	.00	.00	.00	1.00	.00	1.00	.00
67	1.00	.00	4.00	9.00	.00	.00	1.00
68	.00	.00	.00	.00	1.00	.00	.00

Appendix M

Table 6

Complete multiple regression analysis of secondary trauma, beliefs, attachment related anxiety and avoidance, significant life events, time worked with looked after children, gender and age as predictors of MBI EE. Bootstrapping based on 1000 bootstrap samples.

	Standard Multiple Regression						Bootstrapping			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	95% CIs		Bias	SE	95% CIs	
					Lower	Upper			Lower	Upper
Constant	-7.94	6.77		.25	-21.51	5.63	.93	7.46	-21.59	7.94
STSS	.64	.10	.66	.000	.44	.84	-.005	.09	.46	.82
BS	.05	.12	.05	.66	-.18	.28	-.02	.14	-.27	.26
ECR-R Anx.	-.02	.07	-.04	.78	-.15	.11	-.004	.09	-.20	.14
ECR-R Avoid.	.09	.06	.19	.12	-.02	.20	.006	.05	-.01	.18
Life events	-.04	.38	-.01	.93	-.80	.73	-.04	.44	-.97	.74
Time worked	-.01	.02	-.06	.53	-.05	.02	.000	.02	-.05	.03

Note. STSS= Secondary Traumatic Stress Scale, BS= Belief scale, ECR-R= The Experiences in Close Relationships-Revised Questionnaire, Life events = significant life events, Time worked= time worked with looked after children.

Table 7

Complete multiple regression analysis of secondary trauma, beliefs, attachment related anxiety and avoidance, significant life events, time worked with looked after children, gender and age as predictors of MBI DP. Bootstrapping based on 1000 bootstrap samples.

	Standard Multiple Regression					Bootstrapping				
	<i>B</i>	<i>SE</i>	β	<i>p</i>	95% CIs		Bias	<i>SE</i>	95% CIs	
					Lower	Upper			Lower	Upper
Constant	-6.33	4.06		.13	-14.47	1.81	.59	3.80	-12.60	2.12
STSS	.26	.06	.54	.000	.14	.38	-.003	.07	.12	.38
BS	.08	.07	.15	.23	-.06	.22	-.01	.06	-.05	.19
ECR-R Anx.	-.004	.04	-.02	.92	-.08	.08	-.01	.05	-.10	.08
ECR-R	.004	.03	.02	.90	-.06	.07	.002	.04	-.07	.08
Avoid.										
Life events	.13	.23	.06	.57	-.33	.59	-.02	.28	-.43	.62
Time worked	-.01	.01	-.07	.53	-.03	.02	.000	.01	-.03	.02

Note. STSS= Secondary Traumatic Stress Scale, BS= Belief scale, ECR-R= The Experiences in Close Relationships-Revised Questionnaire, Life events = significant life events, Time worked= time worked with looked after children.

Table 8

Complete multiple regression analysis of secondary trauma, beliefs, attachment related anxiety and avoidance, significant life events, time worked with looked after children, gender and age as predictors of MBI PA.

	Standard Multiple Regression					
	<i>B</i>	<i>SE</i>	β	<i>p</i>	95% CIs	
					Lower	Upper
Constant	49.56	5.61		.000	38.32	60.79
STSS	-.37	.08	-.55	.000	-.53	-.20
BS	-.02	.10	-.03	.81	-.21	.17
ECR-R Anx.	.02	.05	.07	.67	-.09	.13
ECR-R	-.03	.05	-.09	.55	-.12	.06
Avoid.						
Life events	-.16	.32	-.06	.62	-.79	.48
Time worked	.004	.02	.03	.81	-.03	.03

Note. STSS= Secondary Traumatic Stress Scale, BS= Belief scale, ECR-R= The Experiences in Close Relationships-Revised Questionnaire, Life events = significant life events, Time worked= time worked with looked after children.

Chapter 3: Reflective Review

Reflective analysis and commentary of research process

Word count (excluding references & appendices): 3345

ABSTRACT

The first two chapters have presented a literature review on intervention studies for work-related stress in unregistered healthcare staff, and a regression study on predictors of burnout in care staff working in residential homes with looked after children. This chapter offers a reflective commentary concerning completing these two papers. Reflections are offered on the origins of the research, conducting research in a private organisation, staff responses to the project, and potential ethical issues. Personal reflections and learning points are discussed and suggestions for future research made. This paper is a reflective account, which provides a context to the whole thesis. As such it is written in the first person to explore the author's views.

INTRODUCTION

Bolton (2010) defined reflection as 'an in-depth consideration of events or situations...[involving] reviewing or reliving the experience to bring it into focus' (p. 19). Reflective practice is a core aspect of the professional conduct of Clinical Psychologists in clinical practice (British Psychological Society, 2006), but is also becoming more common in research (McIntosh, 2010). Two types of reflection, namely in-action - making adjustments while practicing, and on-action - examining a situation in detail to develop a new understanding, have been described by Schön (1983). The purpose of this report is to reflect on action – specifically the experience of having designed, conducted and executed a research project over a thirty-two month period, by using Bolton's (2010) idea of considering events and situations in-depth. This paper, therefore, offers personal reflections on the process of having decided on particular research and review topics, as discussed in chapters one and two, as well as some of the challenges and considerations managed along the way.

Background

Origins of Research

Prior to embarking on a career in Clinical Psychology, I worked as an Assistant Psychologist in a looked after children service, which provides residential care for children accommodated by or in the care of a local authority (HM Government, 2010). During this time I worked closely with non-professional care staff who spent most of their time with the children, yet had limited prior education or knowledge on how best to support looked after children. These experiences have led me to notice that this occupational group often manages emotive situations, is confronted with traumatic stories and re-enactments of traumatising events, work long and unsociable hours, frequently remain at work after hours, and received a considerably low wage and support in return. From an organisational perspective this occupational group is frequently recruited due to significant number of staff members leaving the role on a regular basis; others who have been in the role for years often take long-term

sick leave, due to work-related stress. These experiences first prompted my thinking about stress and burnout in care staff for looked after children.

I started considering my thesis research topic while on my first doctorate placement in another looked after children service, by looking into the current research around this staff group. I found no research on burnout intervention studies for looked after children care staff, which encouraged my thinking around my empirical paper. I started looking into the research on contributing factors to staff burnout, including personal and organisational factors. I found very little that had been explored among looked after children care staff. I felt that extending the knowledge base on what influences burnout amidst this group might offer a foundation that could contribute towards the development of interventions to alleviate burnout.

LITERATURE REVIEW

I felt that a research project investigating the contributing factors to burnout alone would offer little in relation to direct clinical implications for the participants. I was therefore determined to conduct a literature review that would offer initial ideas around the interventions that have been found helpful among other non-professional healthcare support staff groups, namely staff who execute frontline care tasks in health and social care settings, who are not registered with a governing body. I was hoping to provide the host organisation with useful information around support for their care staff. I did not know, at this point, that very little research has been conducted on work-related stress interventions for non-professional staff. However, this did not deter me, rather it elevated my determination to find some studies that had started to investigate interventions aimed at supporting this professional group, hoping that a literature review might draw attention to the current scarcity of research in this field and offer suggestions for future studies.

I have never conducted a full literature review, involving an extensive and systematic search and write up, prior to this project. I never imagined that it would take such an extensive amount of time to arrive at the right collection of

articles. Due to my lack of experience in writing literature reviews, I undoubtedly found this paper the most challenging. I spent a long time reading through abstracts, finding it difficult to enforce an end point to this, as it would have been easy to continue searching the web for further literature. Subsequently I struggled to identify the best structure and the amount of critique to include. To me, the structure of research papers, which usually starts with an introduction, followed by a method, results and discussion section has been very familiar since my undergraduate degree. It was therefore hard to accept the lack of a prescribed structure for the literature review in comparison to research papers. I was looking for the perfect template for guidance. Upon reflection this has perhaps been the case due to being new to literature reviews and therefore I am looking for guidance and support to get it 'right', feeling anxious about the unknown.

RESEARCH REPORT

Design

In regards to the study design, considering the limited number of research projects involving care staff for looked after children and their experience of burnout, I felt it important to capture the views of a larger number of staff members. This would increase generalisability by determining statistical significance of the results. I therefore considered quantitative methods, rather than investigate fewer individuals' experiences using a qualitative approach. Despite thinking that this would be valuable in its own right, by offering rich and detailed information, I kept in mind my aim of potential implications of the research, such as the development of interventions for this occupational group, which requires generalisability rather than rich information from a small number of individuals. Furthermore, some previous research on burnout in other occupational groups has utilised regression to determine what factors might influence individuals' experience of burnout (e.g. Kokkonen, Cheston, Dallos, & Smart, 2014). As I was aiming to identify contributing factors also, it was felt that regression would be the most appropriate. The choice of predictor variables was based on a mixture of reviewing the literature in relation to what has been found to be influential in other occupational groups, and discussions

with my clinical supervisor who has had years of experience working with looked after children care staff. She suggested a potentially unique influence of attachment and secondary trauma on care staff experience of burnout, based on her extensive work with this occupational group, including supervision and observations of the relationships between staff and looked after children. I conducted literature searches thereafter and found some links between attachment, secondary trauma and burnout. These had not yet been explored in great depth, especially among staff prone to experiencing secondary trauma through working with traumatised children (Figley, 1995). These individuals' own attachment styles may influence their caregiving ability (Mikulincer, Shaver, Gillath, & Nitzberg, 2005) and coping strategies to manage stress, which can lead to burnout if based on an insecure attachment style (Mikulincer & Florian, 1998). The remaining independent variables, such as beliefs and previous life events, were chosen based on their significance in previous literature (e.g. Collins & Long, 2003) and their co-occurrence or links, such as trauma and insecure attachment styles predicting irrational beliefs (e.g. Riggs & Han, 2009).

Organisation

I approached the private organisation I previously worked for to collect my data. Previous research experience has taught me the primary difficulty of research can be the recruitment of participants. It was therefore an advantage to be known to the care home managers and a large number of care staff prior to approaching them about the project. Furthermore, due to having previously worked with the organisation's managers it was easier to prompt discussions and gain agreement to conducting the research. It has been argued that good relationships and understanding the context and culture are crucial when attempting to conduct research in care homes (Luff, Ferreira & Meyer, 2011). Out of all looked after children residential care homes in the UK, 62% are now run by private organisations (Ofsted, 2014). These organisations continuously compete for referrals of looked after children with other private care providers. The economic recession and subsequent pressure on local authorities to save money has led to fewer referrals overall, as well as referrals of more complex cases. Considering this, collecting data in one such organisation has meant

that it would be difficult to research an area that may lead to negative publicity for the organisation, as it is the positive reputation the organisation relies on for referrals. Thus, the senior managers did not consent to the collection of data on how organisational factors (e.g. work load and support at work) influence staff burnout, despite the strong evidence base suggesting that these factors are very influential (e.g. Fiabane, Giorgi, Sguazzin & Argentero, 2013). Furthermore, the organisation was concerned about data being collected from additional private organisations, due to potential negative publicity and reputation of being affiliated with another organisation. It was thus agreed to primarily collect data from this organisation itself and to only approach others if I could not recruit enough individuals to meet power. However, this put extra pressure on me to try and collect enough data from one organisation, as originally I had planned to include two with an aim of collecting a larger sample. In addition, collecting from only one organisation limits generalisability of the findings to others, thereby limiting the results. Furthermore, at the time of data collection the service underwent some changes, meaning that some care homes had significantly less care staff than anticipated. Furthermore, the enforcement of policy changes around staff sickness and annual leave meant that some staff had just left the organisation while those remaining appeared more cynical of the organisation's management, as evidenced through discussions with care staff. These factors added further pressure onto my data collection.

Staff

Most care staff approached showed an interest in the research and were willing to participate. In line with Luff et al.'s (2011) argument, having worked in the organisation previously appeared to have helped with the data collection. My previous employment in the organisation helped to re-establish a trusting relationship with care home managers and allowed for effortless attendance at team meetings. On a number of occasions care staff asked about the lack of organisational factors among the questionnaires, having experienced these as significant contributors towards their stress levels. Staff spoke about changes in policies, unsociable hours and lack of support from the organisation as being linked to their levels of stress. This supports the research to date, which

argues that organisational factors are pivotal to stress and burnout (Maslach & Leiter, 1997). As such this has been a significant limitation of my research project, and upon reflection a longer project with less time pressure may have been able to address some of these issues. For example, the organisation may have agreed to investigate organisational factors if the findings were not published, but perhaps utilised to implement change within the organisational structure and policies. Results concerning the impact of this process may have been agreed for publication if they reflect positive change. Nevertheless, the issue of publication bias whereby findings with positive outcomes are more likely to be published would remain, and can be difficult to overcome when undergoing research in private organisations.

Ethical Issues

The Staffordshire University ethics board initially outlined problems with the proposed data collection process in weekly team meetings, due to potentially undermining individuals' free consent and feeling coerced into participating if I remained in the room while care staff completed the questionnaires. One suggestion was to distribute the questionnaires to staff and ask for them to be returned to the main researcher in stamped envelopes. However, due to the high workload of care staff I was aware that it would be extremely difficult to collect enough data to meet power using this approach, as it has previously been outlined that return of research questionnaires is only about 35.7% (Baruch & Holtom, 2008). As a compromise I arranged with care home managers for staff to be given 30 minutes as part of a team meeting to participate, thereby providing staff with protected time to complete the questionnaires if they wished to. I also ensured staff would not feel coerced into participating by giving an option of returning questionnaires at a later date if preferable. I also exited the room whilst staff completed the forms. Through adjusting my data collection in this manner the project was approved without any further delay. Most care staff did complete questionnaires among colleagues in team meetings, based on this set-up, however some staff may have felt socially coerced into doing the same. I tried to manage this issue through explicitly emphasising to staff that they could complete the questionnaires in their own time if they wished to or decline participation

without questioning. While some individuals chose to do this, others may have felt under pressure to complete the questionnaires during the time provided. However, it would have been extremely difficult to collect the same amount of data by asking staff to complete questionnaires in their own time and return these in an envelope, due to an expected low return rate based on previous research (Baruch & Holtom, 2008).

The organisation's restriction of primarily focusing on individuals' contributing factors to burnout further raises another ethical issue. The focus of the research and the 'problem' of burnout were somewhat positioned to lie within the person, despite evidence that suggests that organisational factors are more influential (e.g. Maslach & Leiter, 1997). For me, this has felt uncomfortable at times, as avoiding known influential factors has meant that the results of this study may only be valuable to an extent, and are likely to be restricted due to not addressing important predictor(s) of experiencing burnout in this occupational group.

PERSONAL REFLECTIONS AND LEARNING POINTS

This project has encouraged a lot of personal reflection and consideration of the support care staff receive at work. My interest in research remains strong, and I see it as a vital part of Clinical Psychologists' work as scientist-practitioners. Unfortunately, in these challenging times of financial cuts and increasing demands on services, research is not being prioritised in clinical settings. Being at the beginning of my career I currently remain eager to ensure research becomes part of my practice once I am qualified. However, I fear that the ever-increasing demands on our profession could mean that my enthusiasm gets lost along the way. The many requirements and extensive time commitments involved in conducting research, such as knowledge, patience and above all perseverance make it too easy to leave this aspect of our profession behind once qualified. Having conducted this research project has undoubtedly extended my knowledge in many ways, especially around regression, a statistical analysis I have not previously utilised, as well as

optimal ways of collecting data, conducting literature reviews, and the time management of this project amongst other demands of the course.

This thesis has also emphasised to me the need for further research with care staff working with looked after children. These are the frontline staff who take the role of parents for children who have endured extensive trauma and who can make a significant difference to these children's lives. However, it seems as if they have been neglected in regards to ensuring their wellbeing, which appears vital to enable staff to provide a containing, warm and empathic environment for the looked after children. Throughout my doctoral training I have observed Clinical Psychologists providing support to this staff group through training, team formulations and supervision. However, this often appears to be sporadic and it appears to me that priority is given to registered staff who present as empowered to request this support. My personal discussions with non-professional staff have often accentuated the lack of training and feelings of disempowerment and subsequent stress that sometimes leads to their resignations. Perhaps managers' experiences and anticipation of care staffs' high turnover discourages investment into their wellbeing through interventions, training and support. This may be driven by the view that such investment would be 'lost' when staff leave. To me this sounds like a vicious cycle of disempowerment and frustration among staff and a general acceptance of high staff turnovers amongst management. However, amidst all of this it is the looked after children who are likely to suffer most when staff leave, as it has been established that building positive relationships takes time (Harder, Knorth, & Kalverboer, 2013), yet plays a crucial role in looked after children's development and recovery once established (Moses, 2000).

Finally, researching the topic of burnout and secondary trauma has taught me a lot about the manifestation and potential interventions that may alleviate such distress. I believe that my involvement with the literature over a thirty-two month period will leave me more vigilant for warning signs of burnout and secondary trauma for some time to come. I hope this will serve me well

working with colleagues in the future as well as being able to identify these difficulties within myself should they arise.

Areas for Future Research

Future research should aim to find ways of exploring the relationship between organisational factors and staff burnout. Previous research has found factors such as time pressure, workload and role conflict to influence staff burnout (Maslach, Schaufeli, & Leiter, 2001). Such research would be valuable to inform organisational change. In addition, further research exploring individuals' characteristics and factors found to be influential among other occupational groups, such as locus of control (Maslach et al., 2001), may be of value to further steer the direction of potential interventions. This would appear particularly important in light of the findings from the first chapter, which showed that many intervention studies provide little justification for the implementation of their chosen interventions.

A clearer picture of the factors which make care staff vulnerable to experience burnout is needed. Subsequently, further research with staff working in childcare services should establish the efficacy of interventions in terms of reducing burnout and stress, as highlighted in the literature review. The link between burnout and secondary trauma found in chapter two may indicate a potential need to provide care staff with support managing the traumatic experiences re-enacted by looked after children.

CONCLUSION

Conducting research in private organisations can be challenging. As more health care is being provided by these organisations, we need to find ways of engaging this sector in research. Being familiar with an organisation or working in one offers advantages of building bridges, and has enabled me to complete this research project. To date care staff for looked after children, who are in highly stressful jobs, have not been researched in great detail despite their important care role to looked after children. I hope that this thesis offers an initial contribution towards this endeavour, as currently the majority of efforts

appear to be focused on registered staff. The limited support on offer for frontline care staff may feed into a vicious cycle of high staff turnovers. This project has left me with a variety of new and extended skills regarding data analysis, knowledge around the manifestation of burnout and how to attempt and reduce such experiences, in addition to the planning, execution and evaluation of a research project. Reflecting on this entire thesis leaves me feeling motivated to continue supporting the frontline staff I may work with in the future to contribute towards their wellbeing and thereby that of our service users.

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THESIS APPENDICES

Appendix N

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